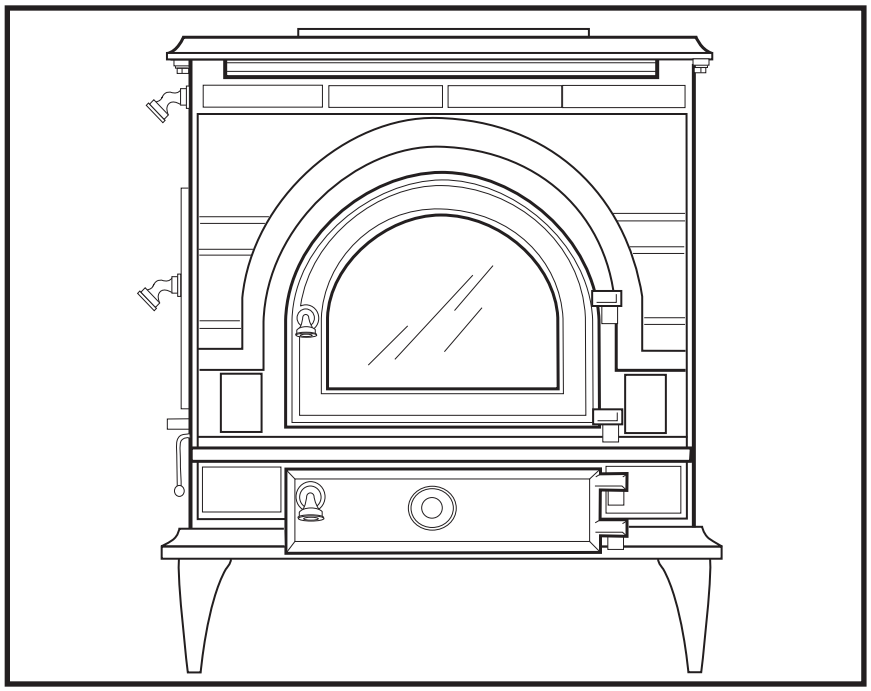
DUTCHWEST
EST. 1974



Convection Heater Model 2463

Homeowner's Installation and Operating Manual

SAFETY NOTICE

If this heater is not properly installed, operated, and maintained, a house fire may result. For safety, follow all installation, operation and maintenance directions. Contact local building officials about restrictions and installation inspection requirements in your area.

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org

We recommend that our woodburning hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Woodburning Specialists or who are certified in Canada by Wood Energy Technical Training (WETT).

Wood Energy Technical Training www.wettinc.ca

DO NOT DISCARD THIS MANUAL: Retain for future use

7001219 8/08 Rev. 3

PLEASE NOTE

Please read this entire manual berfore you install and use your new room heater. Failure to follow instructions may result in property damage, bodily injury or loss of life. Save these instructions for future use.

Table of Contents

Specifications 3
Installation 4
Clearances 12
Assembly 16
Operation 17
Maintenance 22
Illustrated Parts List 30

Proposition 65 Warning: Fuels used in gas, wood-burning or oil fired appliances, and the products of combustion of such fuels, contain chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.
California Health & Safety Code Sec. 25249.6

Patents: U.S. - D288357, 4502395, 4646712; Canada - 1235969. Other foreign mechanical patents issued.

Specifications

Dutchwest, Model 2463

Range of heat output ..... 6,600 - 27,300 Btu's/Hr
Maximum heat output ..... 35,000 Btu's/Hr[1]
Average Area heated (ft^2) ..... 700 - 1400[2] (65-130 m^2)
Maximum burn time ..... 8 hrs[1]
Loading ..... Front or side
Log length ..... 19" (483 mm)
Flue exit position ..... Reversible, top or rear
Air control ..... Primary and Underfire
Weight ..... 380lbs. (172 kg)

1. Maximum burn times and heat outputs are based on laboratory testing using full loads of seasoned hardwoods, and may vary in individual use depending on how the stove is operated, type and moisture content of fuels, and other factors. Maximum burn times are achieved under different operating conditions than are maximum heat outputs.
2. These values are based on operation in building code-conforming homes under typical winter climate conditions in the northeastern U.S. If your home is of non-standard construction (e.g. unusually well-insulated, not insulated, built underground, or if you live in a more severe or more temperate climate), these figures may not apply. Since so many variable affect performance, consult your Dutchwest authorized Dealer to determine realistic expectations for your home.

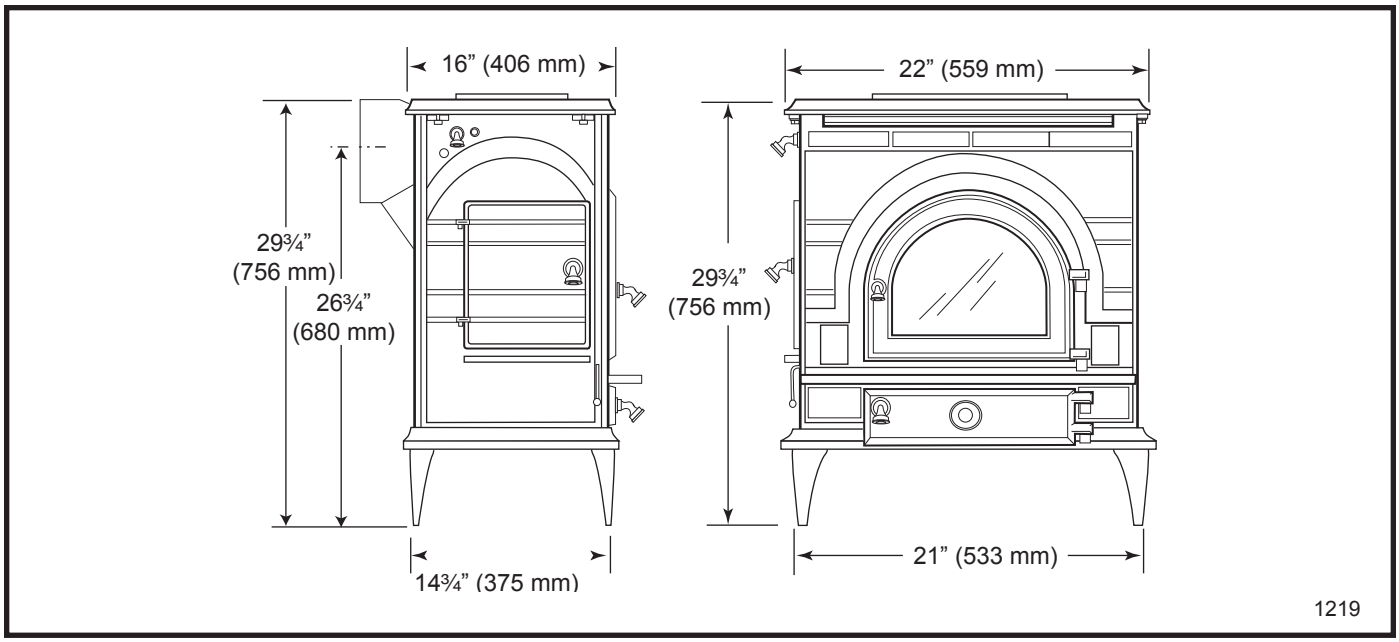


Fig. 1 Dutchwest Convection Heater specifications.

Installation

SAFETY NOTICE: IF YOUR DUTCHWEST CONVECTION HEATER IS NOT PROPERLY INSTALLED, OPERATED AND MAINTAINED, A HOUSE FIRE MAY RESULT. FOR SAFETY, FOLLOW ALL INSTALLATION, OPERATION AND MAINTENANCE DIRECTIONS. CONTACT LOCAL BUILDING OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

Before you begin the installation, review your plans to confirm that:

- Your stove and chimney connector will be far enough from combustible material to meet all clearance requirements.
- The floor protector is large enough and is constructed properly to meet all requirements.
- You have obtained all necessary permits from local authorities.

Your local building official is the final authority for approving your installation as safe and for determining that it meets local and state codes.

Clearance and installation information is printed on the metal label attached to the rear of the stove. Local authorities generally will accept the label as evidence that, when the stove is installed according to the information on the label and in this manual, the installation meets codes and can be approved.

Codes vary in different areas, however. Before starting the installation, review your plans with the local building authority. Your local dealer can provide any additional information needed.

Important: Failure to follow these installation instructions may result in a dangerous situation, including a chimney or house fire. Follow all instructions exactly, and do not allow makeshift compromises to endanger property and personal safety.

Chimney Types

Your Dutchwest Convection Heater must be connected to a sound masonry chimney that meets local codes, a relined masonry chimney that meets local codes, or to an approved prefabricated metal chimney. Whatever kind you use, the chimney and chimney connector must be in good condition and kept clean.

Masonry Chimneys

If you use an existing masonry chimney, it must be inspected to ensure safe condition before the stove is installed. Your local professional chimney sweep, building inspector, or fire department official will be able either to make the inspection or to direct you to someone who can.

An inspection of the chimney must confirm that it has a lining. Do not use an unlined chimney. The chimney should also be examined for cracks, loose mortar, other signs of deterioration, and blockage. Repair any defects before the chimney is used with your stove.

Unused openings in an existing masonry chimney must be sealed with masonry to the thickness of the chimney wall, and the chimney liner should be repaired. Openings sealed with pie plates or wallpaper are a hazard and should be sealed with mortar or refractory cement. In the event of a chimney fire, flames and smoke may be forced out of these unused thimbles.

The chimney should be thoroughly cleaned before use.

A newly-built masonry chimney must conform to the standards of your local building code or, in the absence of a local code, to a recognized national code. Masonry chimneys must be lined, either with code-approved masonry or pre-cast refractory tiles, stainless steel pipe, or a code-approved, “poured-in-place” liner. The chimney’s clean-out door must seal tightly.

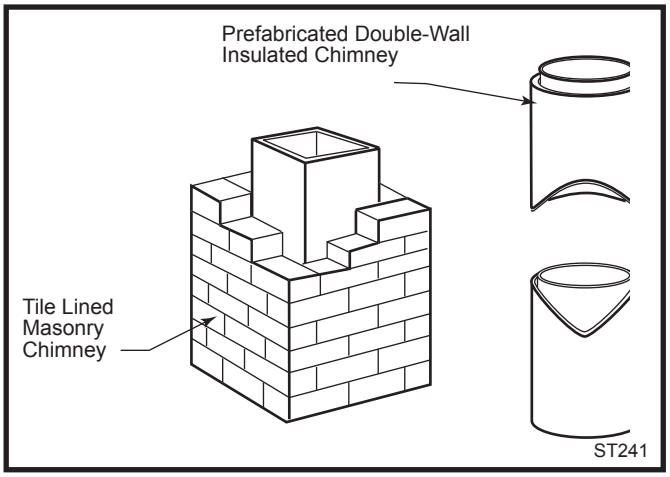


Fig. 2 If in sound condition and approved for use, either a masonry or a prefabricated chimney may be used.

Prefabricated Chimneys

A prefabricated metal chimney must be one tested and listed for use with solid-fuel burning appliances. The applicable standard is *BS4543 Factory-made insulated chimneys,* Part 1: 1990 *Methods of test for factory chimneys with stainless steel flue linings for use with solid fuel fired appliances.*

Chimney Height

For proper draft and good performance, the chimney should extend at least 16' (5 m) above the flue collar of the stove.

The chimney must also extend at least 3' (914 mm) above the highest point where it passes through a roof, and at least 2' (610 mm) higher than any portion of a building within 10' (3 m). (Fig. 2)

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

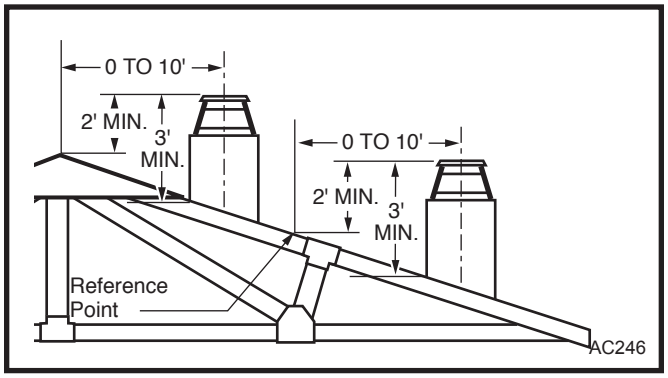


Fig. 3 The 2/3/10 rule for chimneys.

Chimney Size

The Model 2463 heater should be vented into a masonry chimney with a square flue with nominal flue size of 8" x 8" (203 x 203 mm), or a round flue with nominal flue size of 6" (152 mm).

Chimney liners larger than 8" x 12" (203 x 305 mm) may promote rapid cooling of smoke and reduction in draft, especially if they are located outside the home. These large chimneys may need to be insulated or have their flues relined for proper stove performance.

Accessories to help make the connection between stainless steel chimney liners and the stove are available through your local dealer.

Guidelines for Installing the Chimney Connector

The chimney connector is the single-wall pipe, or listed and approved double-wall pipe that connects the stove to the chimney. The chimney itself is a masonry or prefabricated structure that encloses the flue. Chimney connectors are used only to make the connection from the stove to the chimney.

Do not pass the chimney connector through a combustible wall or ceiling, or through an attic, a closet or any similar concealed space. If passage through a combustible wall is unavoidable, follow the recommendations in the following section on Wall Pass-Throughs. Keep the passage as short and direct as possible, with no more than one 45 degree turn. The maximum length fo a horizontal run should not exceed 6" (152 mm)

Two Types of Connector

You may use either a single-wall steel connector of the size and gauge described below, or a listed and approved double-wall connector.

Single-Wall Connector

The single-wall chimney connector should be made of 24 gauge or heavier steel, and must have a minimum internal diameter of 6" (152 mm) for model 2463. The run of single-wall connector should be no more than 8' (2.4 m) long.

Install single-wall chimney connector not less than 18" (457 mm) from the ceiling.

In cathedral ceiling installations, extend the prefabricated chimney downward to within 8' (2.4 m) of the stove. The entire chimney connector should be exposed and accessible for inspection and cleaning.

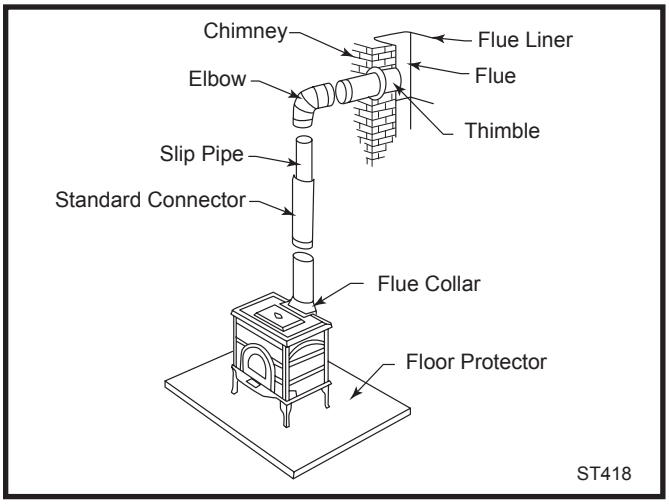


Fig. 4 Sections of a steel chimney connector are fastened together with screws to connect the stove to the chimney.

Do not use galvanized chimney connector; it cannot withstand the high temperatures that can be reached by smoke and exhaust gases and it may release toxic fumes under high heat.

Double-Wall Connector

Information on assembling and installing double-wall connectors is provided by the manufacturer of the double-wall pipe. Follow the manufacturer's installation instructions exactly. Most manufacturers of prefabricated double-wall insulated chimneys also offer double-wall connector pipes. Using a chimney and connector pipe from the same manufacturer helps simplify the assembly and installation.

NOTE: For installations using double-wall connectors, minimum clearances must conform to listed clearances in the Stove and Chimney Connector Clearance Charts on page 12 and 13 of this manual.

Assembling Single-Wall Chimney Connector

SAFETY NOTE: Always wear gloves and safety goggles when drilling, cutting or joining sections of chimney connector.

For double-wall connectors, follow the manufacturer's instructions exactly. For single-wall connectors, follow the instructions below.

1. Insert the crimped end of the first section into the stove's flue collar, and keep each crimped end pointing toward the stove. (Fig.5) Using the holes in the flue collar as guides, drill 1/8" (3 mm) holes in the bottom of the first section of chimney connector and secure it to the flue collar with three #10 x 1/2" sheet metal screws.

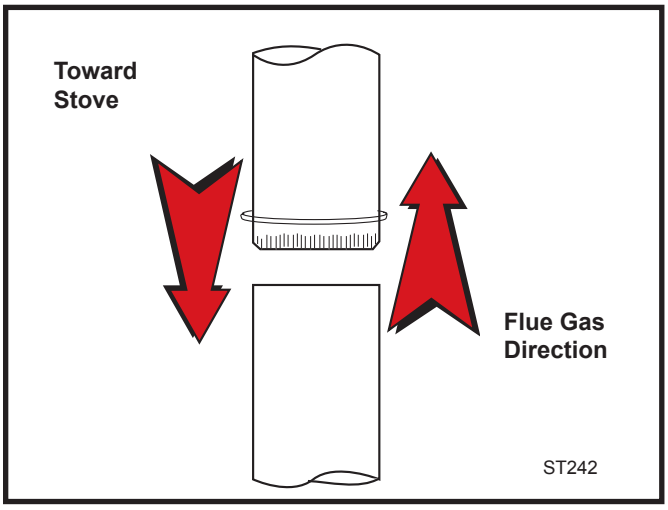


Fig. 5 Crimped sections always point toward the stove so that any liquid condensation will not leak out.

2. Secure each joint between sections of chimney connector, including telescoping joints, with at least three sheet metal screws.

3. Secure the chimney connector to the chimney. Instructions for various installations follow below.

4. Confirm that the installed stove and chimney connector are correct distances from nearby combustible material. See the clearance charts on pages 12 and 13.

NOTE: Special slip pipes and thimble sleeves that form telescoping joints between sections of chimney connector are available to simplify installations. They can eliminate the need to cut individual connector sections. Consult your local dealer about these special pieces.

Securing the Connector to a Prefabricated Chimney

Follow the installation instructions of the chimney manufacturer exactly as you install the chimney. The manufacturer of the chimney will supply the accessories to support the chimney, either from the roof of the house, at the ceiling of the room where the stove is installed, or from an exterior wall.

Special adapters are available from your local dealer to make the connection between the prefabricated chimney and the chimney connector. (Fig. 6) The top of such adapters attach directly to the chimney or to the chimney's ceiling support package, while the bottom of the adapter is screwed to the chimney connector.

These adapters are designed so the top end will fit outside the inner wall of the chimney, and the bottom end will fit inside the first section of chimney connector. Any soot or creosote falling from the inner walls of the chimney will stay inside the chimney connector.

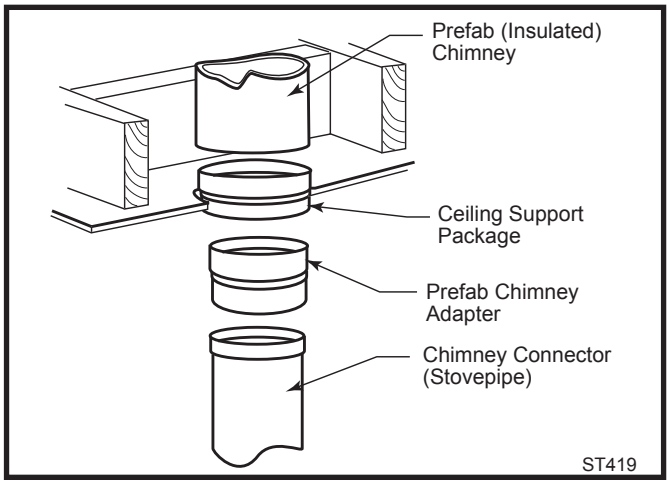


Fig. 6 Joining the chimney connector to a prefabricated chimney.

Securing the Connector to a Masonry Chimney

The Model 2463 may be connected to either a free-standing masonry chimney or a masonry fireplace chimney.

Freestanding Installations

If the chimney connector must pass through a combustible wall to reach the chimney, follow the recommendations in the wall pass-through section that follows.

The opening through the chimney wall to the flue (the “breech”) must be lined with either a ceramic or metal cylinder, called the “thimble”, which is securely cemented in place. (Fig. 7) Most chimney breeches incorporate thimbles, but check to be sure the fit is snug and the joint between thimble and chimney wall firmly cemented.

A special piece called the “thimble sleeve,” slightly smaller in diameter than the standard connector and most thimbles, will ease the removal of the chimney connector system for inspection and cleaning. Thimble sleeves should be available from your local dealer.

To install a thimble sleeve, slide it into the breech until it is flush with the inner flue wall. Don’t extend it into the actual flue passage, as that could interfere with the draft.

The thimble sleeve should protrude 1-2” (25-51 mm) into the room. Use furnace cement and thin gasketing to seal the sleeve in place in the thimble. Secure the chimney connector to the outer end of the sleeve with sheet metal screws.

Fireplace Installations - Above the Fireplace

In this installation, the chimney connector rises from the stove, turns 45 degrees, and goes back into the fireplace chimney. The liner of the fireplace chimney should extend at least to the point at which the chimney connector enters the chimney. Follow all the guidelines for installing a chimney connector into a freestanding masonry chimney, and pay special attention to these additional points:

- Check the stove and chimney connector clearances to combustible mantel or trim materials. Use the necessary combination of mantel, trim, and connector heat shields to provide the required clearances. (Fig. 8)
- Double-check connector clearance from the ceiling.
- The fireplace damper must be closed and sealed to prevent room air from being drawn up the flue, reducing the draft. However, it must be possible to re-open the damper to inspect or clean the chimney.

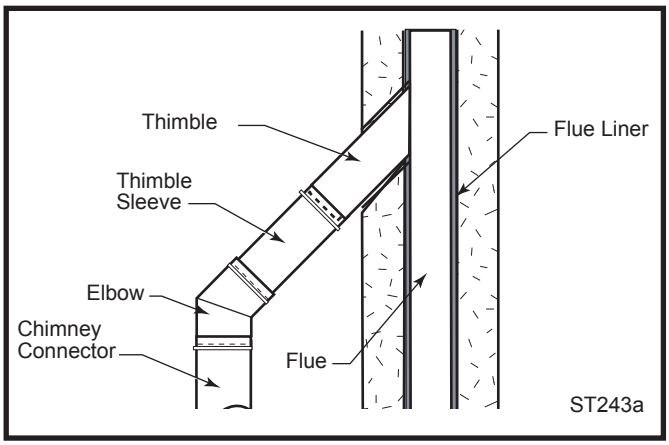


Fig. 7 The thimble, made of either ceramic or metal, must be cemented in place securely.

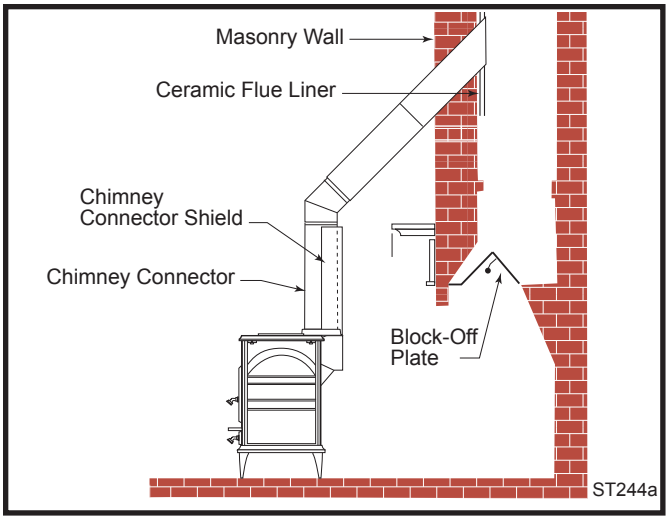


Fig. 8 The connector enters flue above the fireplace. If the clearance between the chimney connector and either the mantel and/or the ceiling is inadequate, special protective shields will be required.

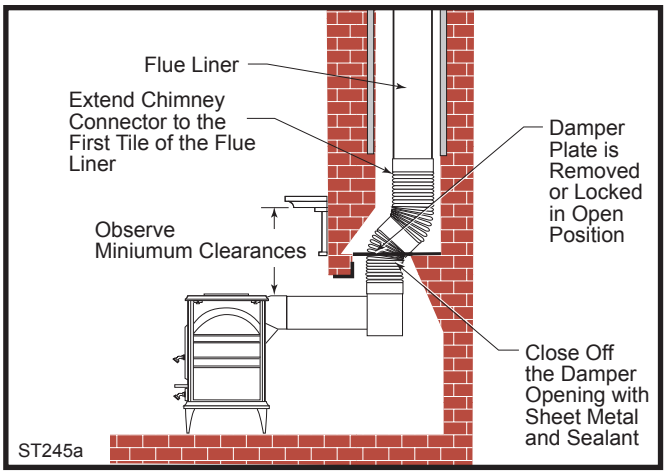

Flue Liner
Extend Chimney Connector to the First Tile of the Flue Liner
Damper Plate is Removed or Locked in Open Position
Observe Miniumum Clearances
Close Off the Damper Opening with Sheet Metal and Sealant
ST245a

Fig. 9 The connector passes through the fireplace to enter flue. Special Fireplace Adapter Kits to simplify fireplace installations are available from your local dealer.

Fireplace Installations - Through the Fireplace

The Model 2463 heater may be installed either without legs* as a fireplace insert, or with standard legs attached - depending on the safety regulations that apply to your situation, the height of the fireplace opening and your own preference. For either situation, the chimney connector/positive connection kit extends back from the stove, enters the fireplace cavity, and turns upward. It then passes through the fireplace damper opening and smoke chamber and connects to the chimney flue.
In such installations, a “positive connection” must be made to the chimney flue with a special kit available from your local dealer. Also, special clearance and floor protection provisions must be observed. These provisions are discussed in the Clearance and Floor Protection sections respectively.

Wall Pass-Throughs

Whenever possible, design your installation so the connector does not pass through a combustible wall. If you must use a wall pass-through in your installation, check with your building inspector before you begin and construct it in accordance with local building codes. Also check with the chimney connector manufacturer for any specific requirements.

Accessories are available for use as wall pass-throughs. If using one of these, make sure it has been tested and listed for use as a wall pass-through.

All combustible material in the wall is cut away a sufficient distance from the single-wall connector to provide the required 12” (305 mm) clearance for the connector. Any material used to close up the opening must be noncombustible.

The following wall pass-through methods may be approved in your area:

- Use a section of listed factory-built chimney with a nine-inch clearance to combustibles.
- Place a chimney connector pipe inside a ventilated thimble, which is then separated from combustibles by 6” (152 mm) of fiberglass insulating material.
- If the stove is installed without legs, we recommend the use of noncombustible tiles or pavers as shims to allow air flow into the convection air inlets under the stove.

Figure 11 illustrates another method in which all combustible material in the wall is cut away to provide 18” (457 mm) clearance for the connector. The resulting space must remain empty. Check your local building codes.

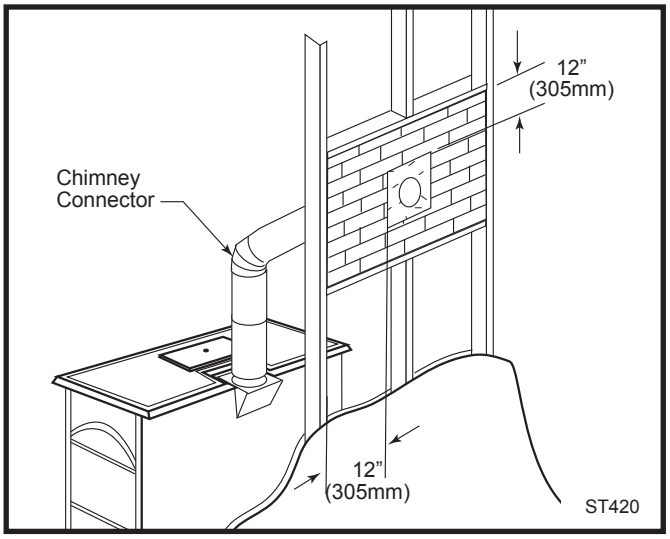


Fig. 10 Wall pass-through enclosed with noncombustible materials.

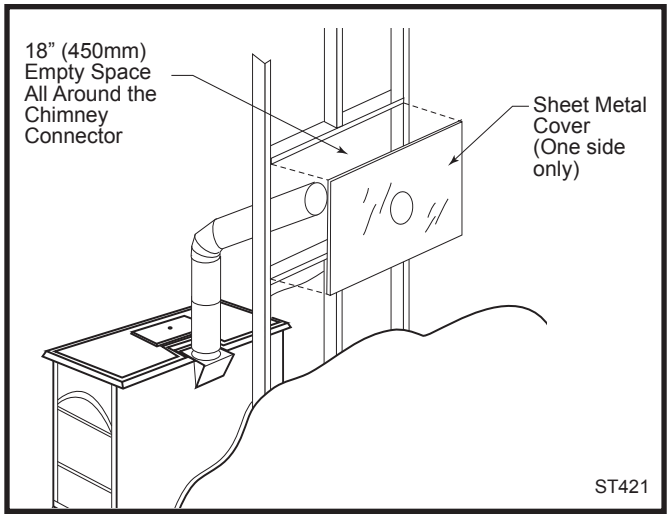


Fig. 11 Hollow wall pass-through.

NOTE: Do not vent your stove into a factory-built (zero-clearance) fireplace. These appliances and their chimneys are specifically designed as a unit for use as fireplaces. It may void the listing or be hazardous to adapt them for any other use.

DO NOT CONNECT THE HEATER TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.

Floor Protection

Freestanding Installations

A constructional hearth should be provided of solid, noncombustible material at least 125 mm thick (which may include the thickness of any solid, noncombustible floor under a hearth) and at least 33” (838 mm) deep by 40” (1016 mm) wide. Note that at these minimum dimensions, the stove will be offset toward the right side of the hearth (as you face it) to maintain proper protection beyond the side loading door. If you wish to place the stove symmetrically on the eharth, add 6” (152 mm) to the right side.

Combustible material should not be placed under a constructional hearth unless:

(a) it is to support the edges of the hearth, or

(b) there is an air space of at least 50 mm between the material and the underside of the hearth, or there is a distance of at least 250 mm between the material and the top of the hearth. (Fig. 13)

Fireplace Installations

You may install your Dutchwest Convection Heater in an existing fireplace as a fireplace insert with no legs, or with the standard legs attached.
To install the heater without legs as a fireplace insert, the floor must be completely noncombustible, such as an unpainted concrete floor over earth.

Many fireplaces do not satisfy the “completely noncombustible” requirement because the brick or concrete hearth in front of the fireplace opening usually is supported by heavy wooden framing as in Figure 13. Because heat passes readily through brick or concrete, it can easily pass through to the wood. As a result, such fireplace hearths are considered a combustible floor. **You may not install a heater on a combustible hearth without legs. Standard leg installations must include the bottom heat shield.** The floor protector must also meet standard requirements for freestanding installations.

Floor Protection for Fireplace Installations with Standard Legs

Fireplace installations with the standard legs and the bottom heat shield must have a floor protector of the same construction as that specified for freestanding installations: 1/4” non-asbestos mineral board or equivalent, or 24 gauge sheet metal (that may be covered with a decorative noncombustible material if you desire). The floor protector must extend at least 16” (406 mm) from the front of the stove and from the left (loading door) side, and at least 6” (152 mm) from the right side and rear. It must also provide protection beneath any

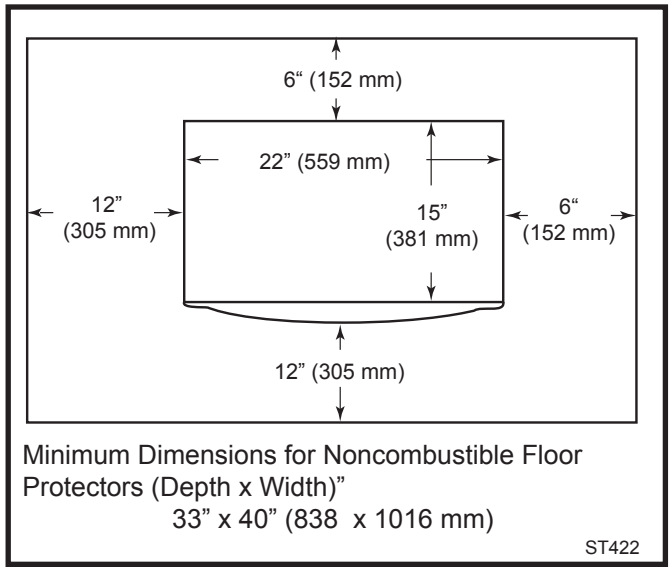


Fig. 12 Be sure to follow exactly the floor protection requirements on all four sides of the stove.

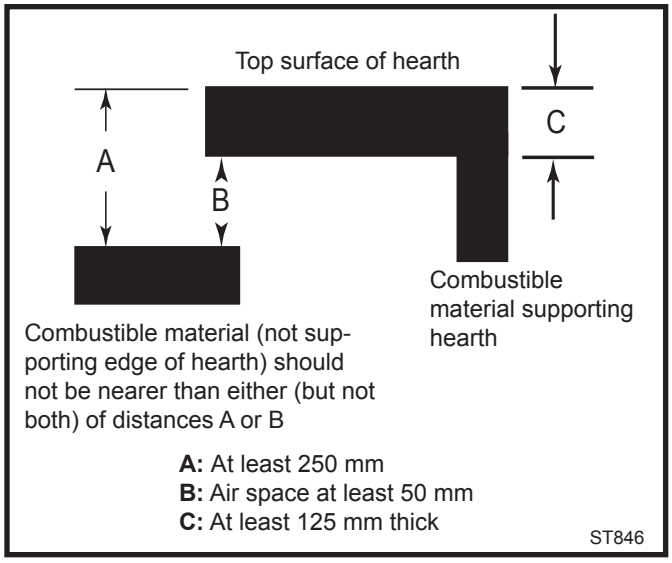

Top surface of hearth
A
B
C
Combustible material supporting hearth
Combustible material (not supporting edge of hearth) should not be nearer than either (but not both) of distances A or B
A: At least 250 mm
B: Air space at least 50 mm
C: At least 125 mm thick
ST846

Fig. 13 Hearth construction.

horizontal runs of the chimney connector, including 2” to either side.

Many raised hearths will extend less than the required distance from the front of the heater when it is installed. In such cases, sufficient floor protection, as described above, must be added to extend the hearth 16” (406 mm).

Hearth rugs do not satisfy the requirements for floor protection.

Fireplace insert installations also have specific clearance requirements to the side walls, side decorative trim, and fireplace mantel. This information is found in “Fireplace Installation Clearances” in this section.

REMINDER- FIREPLACE INSERT INSTALLATIONS WITHOUT LEGS ARE PERMISSIBLE ONLY IF THE HEARTH IS COMPLETELY NONCOMBUSTIBLE, SUCH AS UNPAINTED CONCRETE OVER EARTH.

Keep the Stove a Safe Distance From Surrounding Materials

Both a stove and its chimney connector radiate heat in all directions when operating. A safe installation requires that adequate *clearance* be maintained between the stove and nearby combustible materials to ensure that such materials do not overheat.

Clearance is the distance between either your stove or chimney connector, and nearby walls, floors, the ceiling, and any other fixed combustible surface. Keep furnishings and other combustible materials away from the stove as well. In general, a distance of 48" (1219 mm) must be maintained between the stove and moveable combustible items such as drying clothes, furniture, newspapers, firewood, etc. Keeping those clearance areas empty assures that nearby surfaces and objects will not overheat.

Safe Ways to Reduce Clearances

Your stove has specific clearance requirements that have been established through careful research and testing to UL and ULC standards.

Clearance requirements have been established to meet every installation possibility, and they involve the combination of basic variables:

- When the stove has no listed heat shield
- When the stove has a listed heat shield
- When the wall has no heat shield
- When the wall has a heat shield
- When the stove has a double-wall chimney connector.
- When the stove has a single-wall connector wit heat shields, or without heat shields.

In general, the greatest clearance is required when you locate a stove with no heat shield near a wall with no heat shield. The least clearance is required when both the stove and the wall have heat shields. Reducing a stove clearance may require a listed heat shield on the chimney connector as well, or a double-wall connector.

Clearances may be reduced only by means approved by the regulatory authority and in accordance with the clearances listed in this manual. The charts and sample installations that follow list all the clearances required for the various installation configurations of Dutchwest Convection Heaters Model 2463.

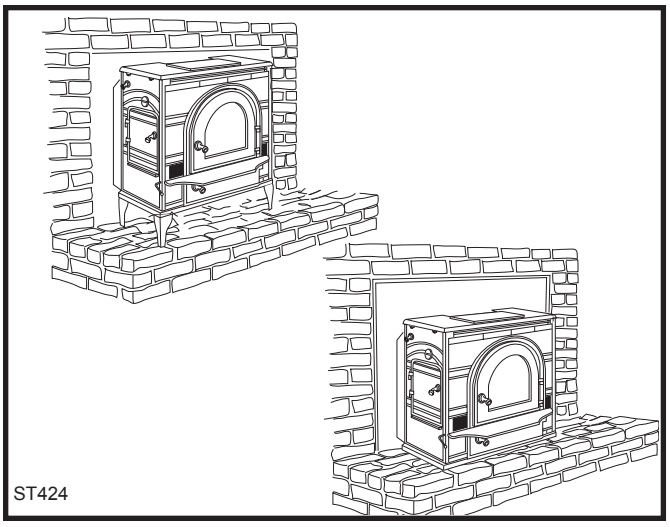


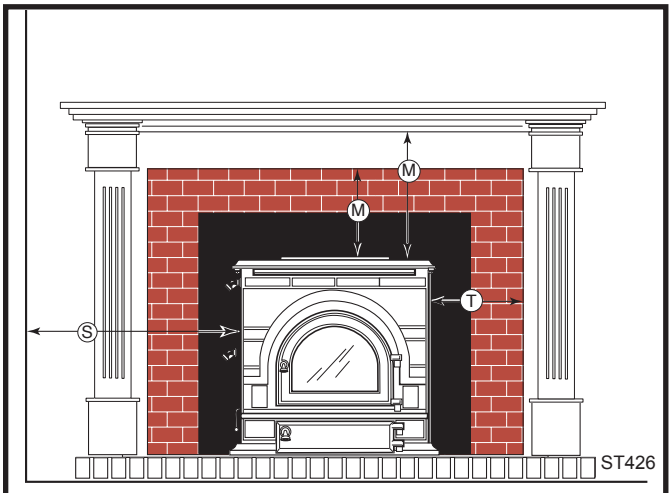
Fig. 14 Extra floor protection may be required for the fireplace hearth, even if your stove is installed with the legs and the bottom heat shield.

Fireplace Installation Clearances

A fireplace installation requires special clearance between the:

- Side of the stove and the right and left walls
- Side of the stove and the decorative side trim on the fireplace face
- Top of the stove and the mantel

In addition, both Fireplace Adapter and Fireplace Insert installations have special floor protection requirements that are addressed in the section on Floor Protection.



Side Walls (S)	20" (508 mm)
Trim (T)	12" (305 mm)
Mantel (M)	20" (508 mm)
Top Trim (M)	20" (508 mm)

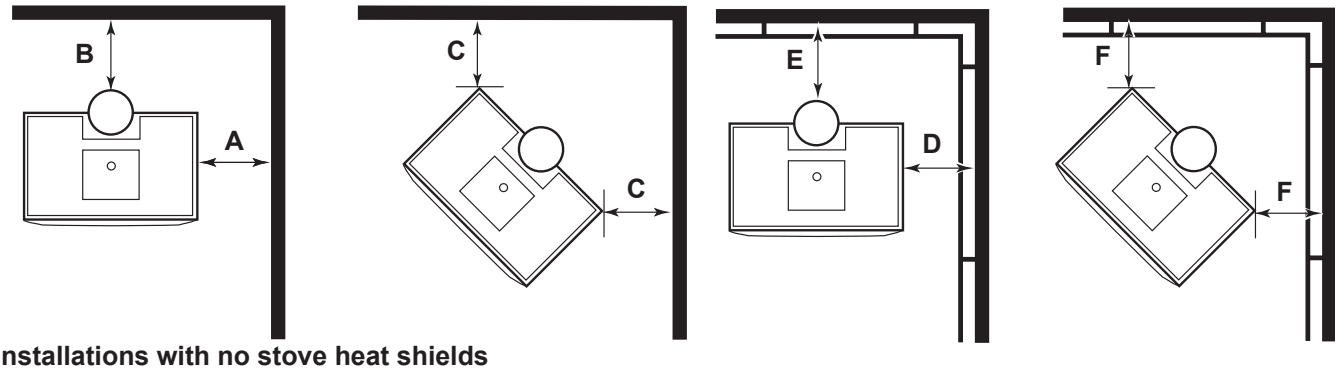
Fig. 15 Minimum clearances for fireplace installation. Recommended clearances must be maintained between stove and the surrounding combustible components.

Clearance Chart Reference Diagrams

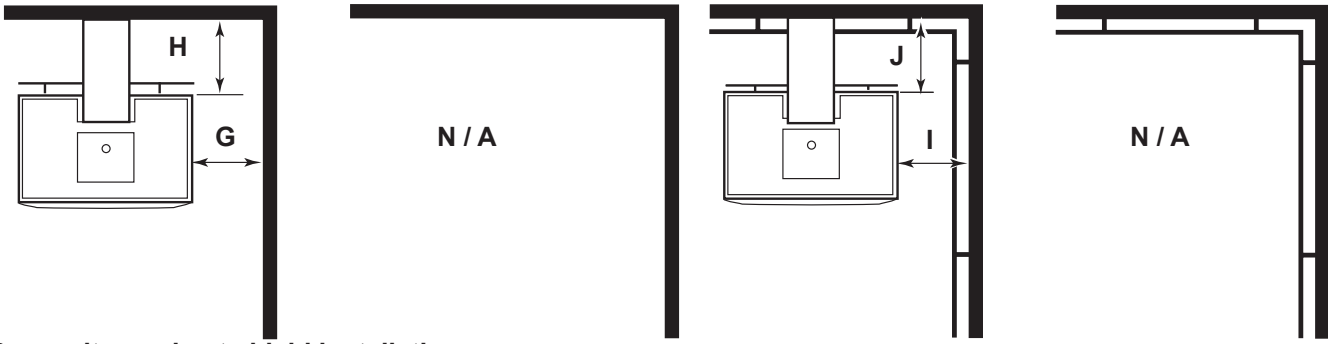
Refer to the diagrams below when using the Stove and Chimney Connector Clearance Chart which follows. For example, the letter “A” gives the minimum side clearance for installations in which the stove is not equipped with a rear heat shield and the wall beside the stove is not protected. “D” gives the minimum side clearance when the stove does not have a rear heat shield, but the wall is protected.

Measure clearance distances from the top plate of the stove or chimney connector to the wall, not the wall protector.

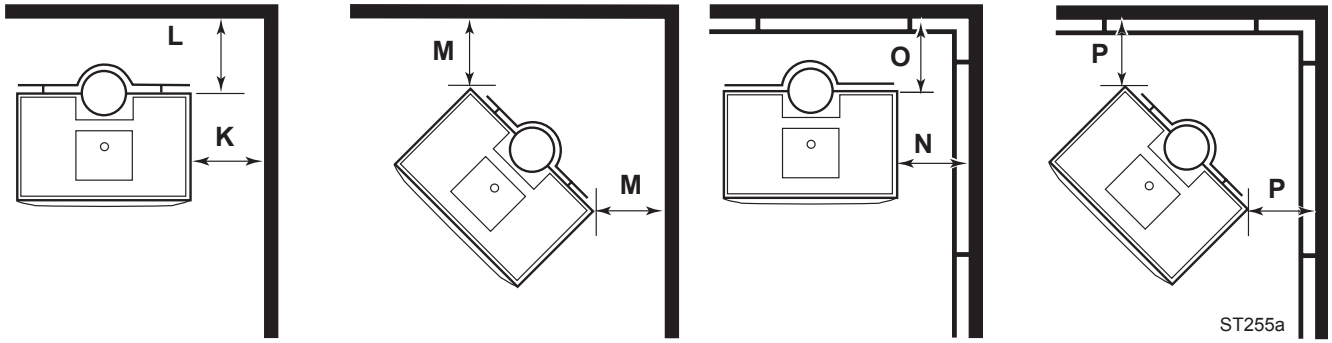
Unprotected Surfaces		Protected Surfaces	
Parallel Installations	**Corner Installations**	**Parallel Installations**	**Corner Installations**



Installations with no stove heat shields



Rear exit, rear heat shield installations



Top exit, rear heat shield and chimney connector heat shields or double wall connector

Stove and Chimney Connector Clearance Charts

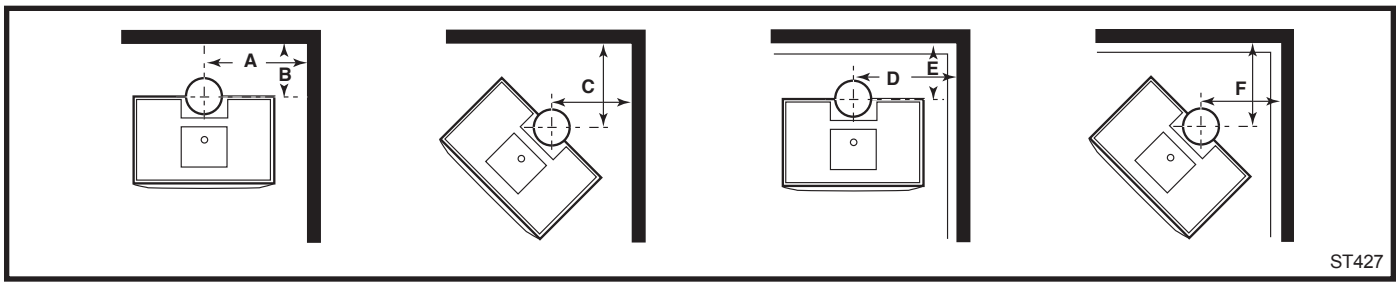
	Unprotected Surfaces			Protected Surfaces		
	Stove Clearance					
	Stove Installed Parallel to Wall		Stove in Corner	Stove Installed Paralle to Wall		Stove in Corner
	Side	Rear	Corners	Side	Rear	Corners
No heat shields	(A) 22” (559 mm)	(B) 24” (610 mm)	(C) 18” (457 mm)	(D) 12” (305 mm)	(E) 14” (356 mm)	(F) 10” (254 mm)
Rear exit, rear h.s.	(G) 22” (559 mm)	(H) 14” (356 mm)	n/a	(I) 12” (305 mm)	(J) 12” (305 mm)	n/a
Top exit[1], rear h.s. single-wall connector No connector h.s.	(K) 22” (559 mm)	(L) 24” (610 mm)	(M) 18” (457 mm)	(N) 12” (305 mm)	(O) 14” (356 mm)	(P) 10” (254 mm)
Top exit[1,2], rear h.s. single-wall connector with connector h.s.	(K) 22” (559 mm)	(L) 14” (356 mm)	(M) 15” (381 mm)	(N) 12” (305 mm)	(O) 12” (305 mm)	(P) 8” (203 mm)
Top exit[1], rear h.s. double-wall connector	(K) 22” (559 mm)	(L) 15” (381 mm)	(M) 19” (483 mm)	(N) 12” (305 mm)	(O) 11” (279 mm)	(P) 8” (203 mm)
	Chimney Connector Clearance					
Single-wall connector no connector h.s.	19” (483 mm)			9” (229 mm)		
Single-wall[2] connector with connector h.s.	9” (229 mm)			7” (178 mm)		
Double-wall connector	14” (356 mm)			6” (152 mm)		
	Front Clearance to Combustibles					
	All Installation			48” (1219 mm)		

1. Shielding for a top exit stove must include a shield insert to protect the area behind the flue collar.
2. Chimney connector heat shields must extend exactly 24” (610 mm) above the flue collar of the stove.
3. All installations venting straight up to a factory built chimney require a 24” (610 mm) diameter or square ceiling heat shield. The ceiling heat shield should be 24 gauge sheet metal or equivalent mounted on 1” (25 mm) noncombustible spacers 1” (25 mm) below ceiling.
4. Chimney connector heat shields must extend to within 1” (25 mm) or less of the ceiling heat shield for installations venting straight up to a factory-built chimney. In top exit installations using an elbow to vent to the rear, the chimney connector must be shielded over the entire vertical length.
5. If a single-wall oval-to-round adapter is used, a shield must be used to protect combustibles to the rear of the adapter.

Distance from Center of Flue Collar to Wall in Top-Exit Installations

Dutchwest Convection Heaters equipped with rear heat shields

NOTE: These are not clearance distances. These measurements indicate where the centerline of the flue collar will be for various installations. Measurements are from the centerline of the flue collar to the wall, not the wall protector.



Heater Installed with Rear Heat Shield and:		Unprotected Surfaces			Protected Surfaces		
		Side (A)	Rear (B)	Corner (C)	Side (A)	Rear (B)	Corner (C)
	Double-wall Chimney Connector	33” (838 mm)	18” (457 mm)	25” (635 mm)	23” (584 mm)	10” (254 mm)	15” (381 mm)
	Single-wall connector connector h.s.	33” (838 mm)	13” (330 mm)	22” (559 mm)	23” (584 mm)	11” (279 mm)	15” (381 mm)
	Single-wall connector no heat shields	33” (838 mm)	23” (584 mm)	25” (635 mm)	23” (584 mm)	13” (330 mm)	17” (432 mm)

Wall Heat Shield Dimensions

DutchWest Convection Heaters, Model 2463

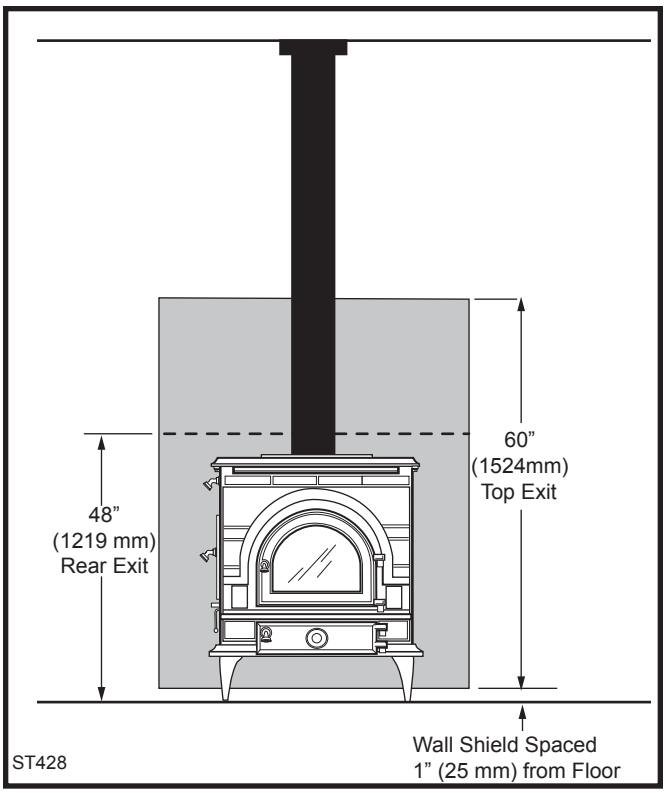


Fig. 16 Rear wall protection.

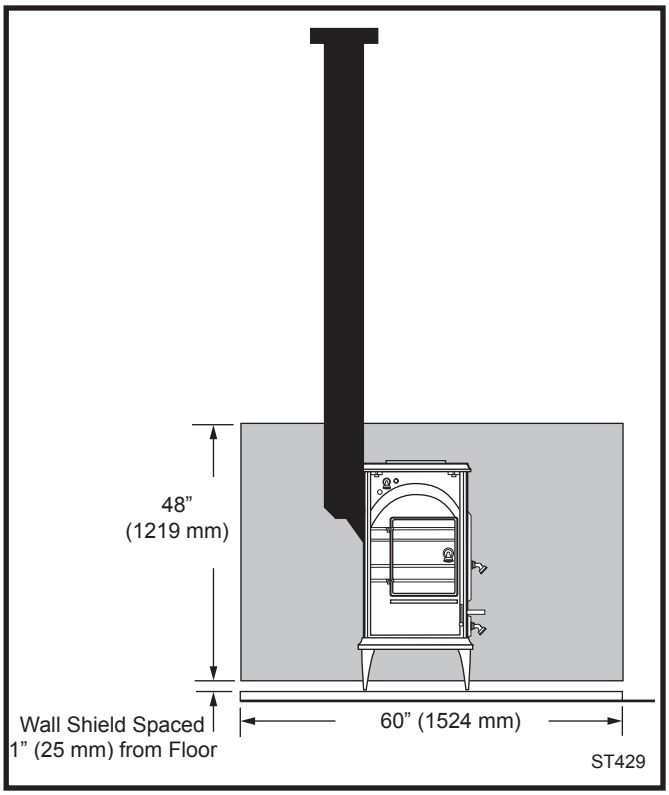


Fig. 17 Sidewall protection.

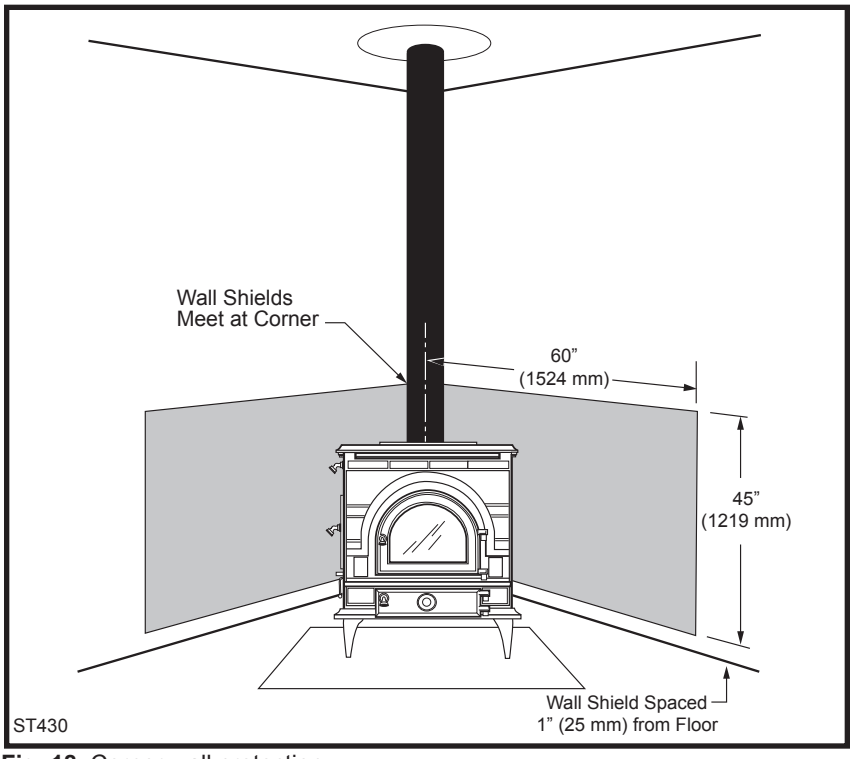


Fig. 18 Corner wall protection.

Assembly

Your convection heater requires some assembly. Follow the directions carefully and refer to the parts diagram at the back of this manual.

Unpack the Parts

Remove all loose parts from the firebox and the ash pan. Check to make sure all the parts are included and intact. You should have received:

- 1 fully assembled heater body, (with catalytic burner installed at the factory)
- 4 legs
- 1 ash pan
- 1 probe thermometer
- 1 ceramic handle assembly
- 1 strip of Interam™ gasket (for the catalytic burner)
- 1 hardware bag, containing the following parts:
  - (3) #10 x 1/2" sheet metal screws, (to attach the chimney connector to the flue collar)
  - (1) 1/8" Allen wrench, (to tighten the door latch)
  - (1) 5/32" Allen wrench, (to tighten the damper handle)
  - (4) washers, (used with the leg bolts to attach legs to the stove)
  - (1) door handle insert holder for storing the ceramic handle assembly when it is not in use.

The four hex-head leg bolts have been installed in the appropriate holes in the bottom of the stove.

If any parts are missing or damaged, immediately notify your Dutchwest dealer for replacements. Do not install your stove without having all necessary parts or by using damaged parts.

*** A Bottom Heat Shield is required in many installations. Refer to the floor protection information found in the Installation Section of this manual.**

Attach the Legs and Heat Shield

Place the stove on its back on a soft surface such as a couple of old blankets. Tilt it carefully; it is heavy. Use 4 x 4 blocking to make it easier to tilt the stove. Protect surrounding flooring with an old blanket or sheet.

The tops of the legs are slotted. Remove each leg bolt from the bottom of the stove and then replace it with a washer from the hardware bag. If you are attaching a bottom heat shield, place a heat shield bracket on each bolt. Place the door handle insert holder on the bolt for the left rear or either front leg. Slide the legs onto the bolts and gently tighten each bolt. (Fig. 19) If you are attaching a bottom heat shield, screw it onto the heat shield brackets.

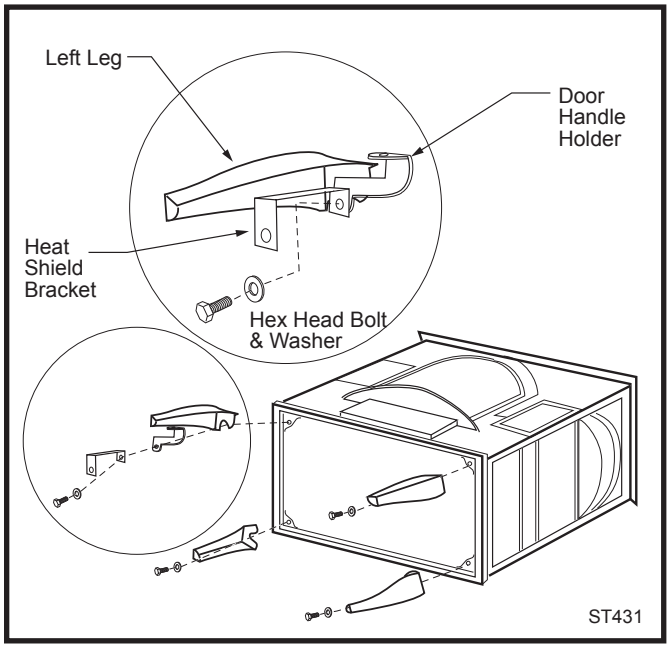


Fig. 19 To attach the legs, remove the bolts from the stove bottom and reassemble with the handle holder, heat shield brackets (if necessary) and washers.

Operation

Heater Controls and Features

Air Controls

The Dutchwest Convection Heater has two air controls that regulate the amount of air drawn into the stove. Generally, more air entering the stove allows the fire to burn hotter and faster, while less air decreases heat output while prolonging the overall burn time.

The **Primary Air** control lever is located at the lower front edge of the left side (looking from the front of the stove). (Fig. 20) The lever operates the two air inlet shutters which are on the front of the stove. Opening the inlet shutters provides air for primary combustion.

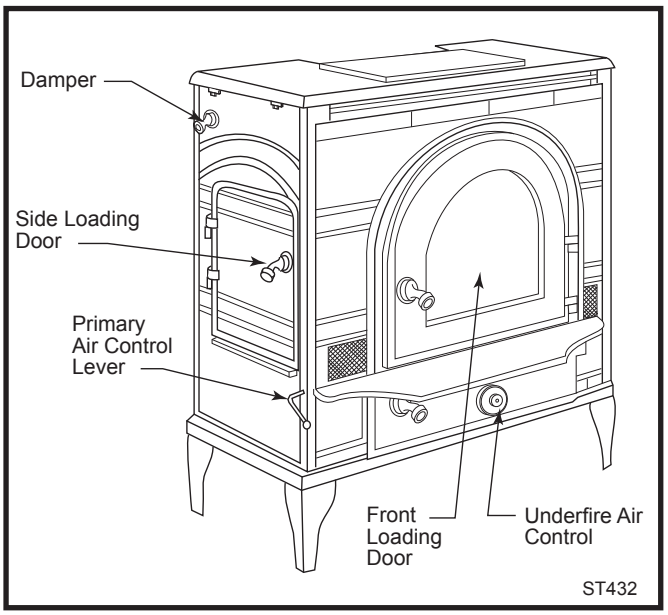


Fig. 20 The heater controls.

To open the shutters, turn the lever counterclockwise. The shutters are all the way open when the lever points toward the front at a ”4:30” position. (Fig. 21) To close the shutters, turn the lever clockwise. The shutters are fully closed when the lever points straight down. (Fig. 22)

The central **Underfire Air** control valve on the front of the stove is operated with the multipurpose door handle. The control opens when turned counterclockwise and closes when turned clockwise.

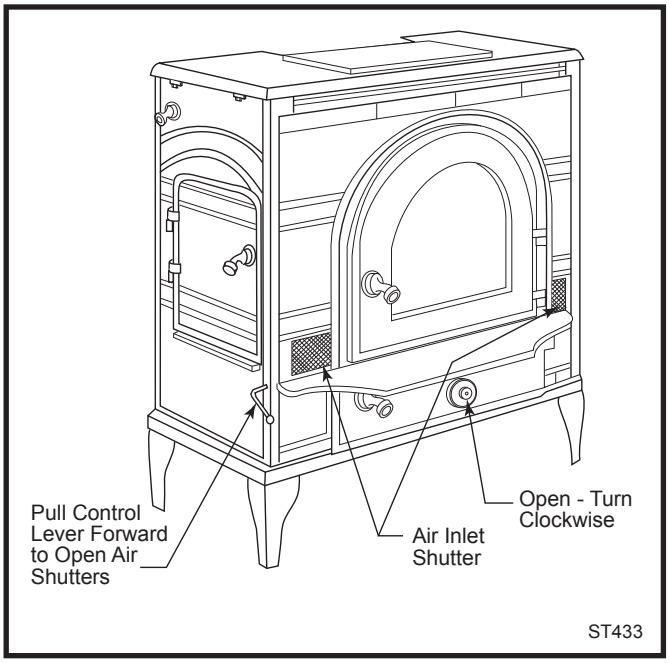


Fig. 21 Opening the primary air supply.

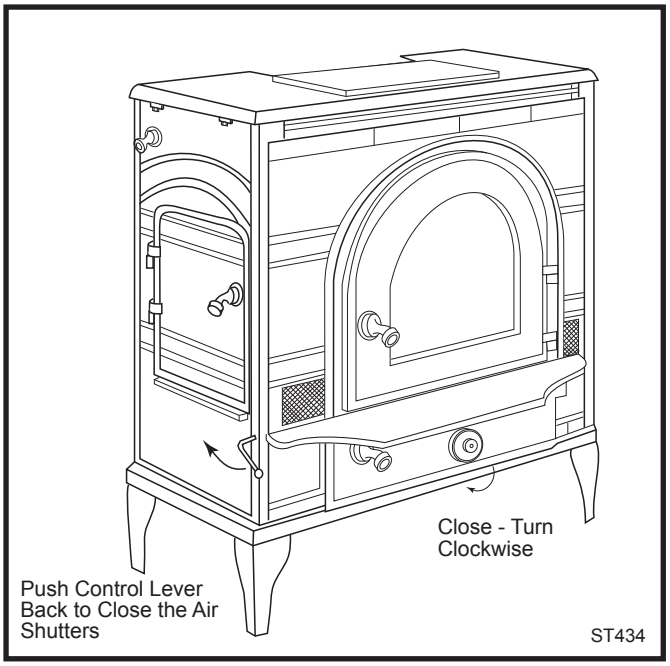


Fig. 22 Closing the primary and underfire air supply.

Damper Function

The **Damper** is operated by moving the handle on the upper left side of the stove. (Fig. 23) It has two positions: *OPEN*, to start the fire and load fuel, and *CLOSED*, for greatest efficiency and heat. When the damper is closed, exhaust gases pass through an insulated catalytic burner before flowing into the chimney.

Use the door insert handle to rotate the damper handle. Turn it counterclockwise to open the damper and clockwise to close it. You will feel resistance as the damper mechanism engages into the open (counterclockwise) position.

The stove damper **must** be open when you start a fire, load fuel, or before you open either door for any reason.

Load Doors

A **Side Loading Door** allows the easiest loading of wood logs. The **Front Door** opens for adding an occasional log to the fire. Always be sure to open the stove damper before opening either door.

Successful Wood Burning

Woodburning is often said to be more of an art than a science. You'll easily master the art if you start by using good, dry fuel and by understanding how the stove's air supply system operates.

Burn Only High-Quality Fuel

Your heater is designed to burn natural wood only. Do not burn other fuels. Never burn pressure-treated wood, painted or stained wood, or glossy newsprint.

High efficiencies and low emissions are possible when burning air-dried, seasoned woods as compared to softwoods or freshly cut hardwoods. Avoid burning "green" wood that has not been properly seasoned.

The best hardwood fuels include oak, maple, beech, ash, and hickory that has been split, stacked, and air-dried outside under cover for at least one year. If hardwood is not available, tamarack, yellow pine, white pine, Eastern red cedar, fir, and redwood are softwoods that are commonly burned. They too should be properly dried. The length of the wood should be the same as that specified for your particular stove. Avoid using wood that has been dried more than two years. Often gray in color, this wood burns very quickly, resulting in short burn time and diminished stove performance. If you must burn it, mix it in with greener wood to slow the burn.

Store your firewood under cover to keep it dry. Even for short-term storage, keep wood a safe distance from the heater and keep it clear of the areas around the heater used for refueling and ash removal.

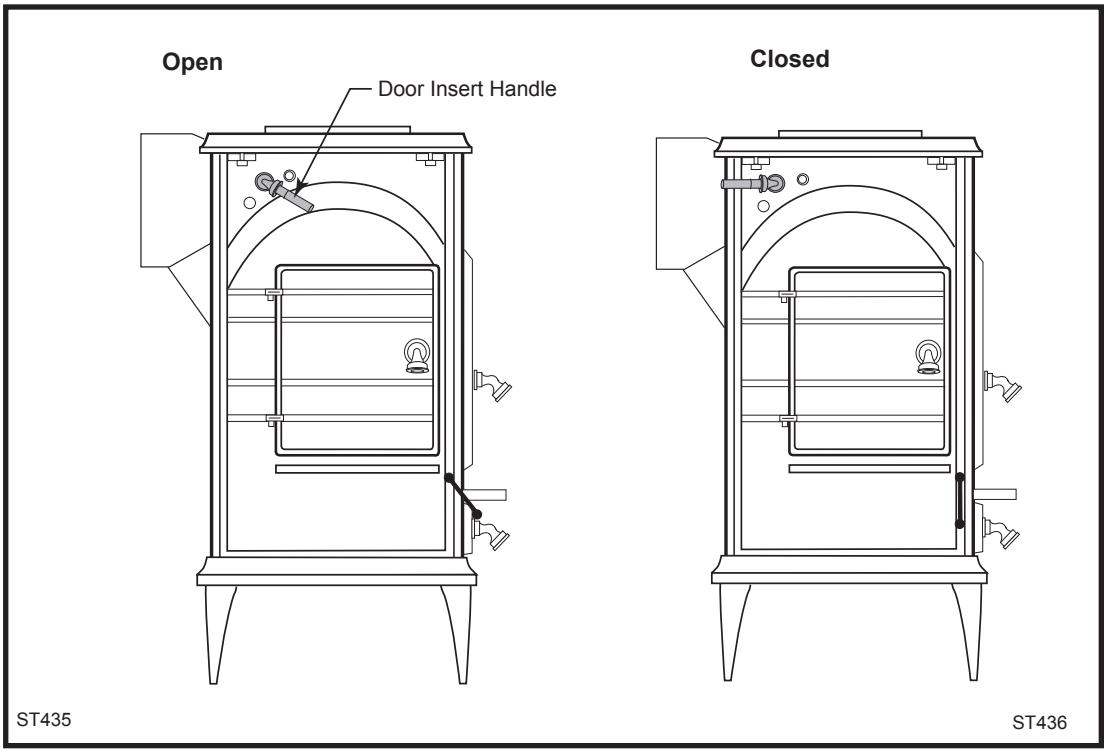


Fig. 23 Damper operating positions.

Use the Air Control Settings that Work Best for You

No single combination of control settings will fit every situation. Each installation will differ depending on the quality of the fuel, the amount of heat desired, and how long you wish the fire to burn.

Control settings also depend on your particular installation's "draft," or the force that moves air from the stove up through the chimney. Draft is affected by such things as the height, type, and location of the chimney, local geography, nearby obstructions, and other factors.

Too much draft may cause excessive temperatures in the stove. On the other hand, too little draft can cause backpuffing into the room and/or the "plugging" of the chimney and catalytic burner.

How do you know if your draft is excessively high or low? Symptoms of too much draft include an uncontrollable burn or a glowing-red part of the stove or chimney connector. A sign of inadequate draft is smoke leaking into the room through the stove or chimney connector joints.

When first using the stove, keep a record of the results you achieve from different control settings. You will find that specific control settings will give you a fixed amount of heat. It may take a week or two to determine the amount of heat and the length of burn you should expect from various control settings.

Most installations do not require a large amount of combustion air, especially if adequate draft is available. Do not attempt to increase the firing rate of your heater by altering the air control adjustment range outlined in these directions.

In some newer homes that are well insulated and weather-tight, poor draft may result from insufficient air in the house. In such instances, an open window near the stove on the windward side of the house (side against which the wind is blowing) will provide the fresh air needed.

A better option for assuring the delivery of adequate combustion air is to duct air directly to the stove from outside the house. In some areas, provisions for outside combustion air is required in all new construction. Check your local codes.

Use the air control settings indicated in Figure 24 as a starting point to help determine the best settings for your installation.

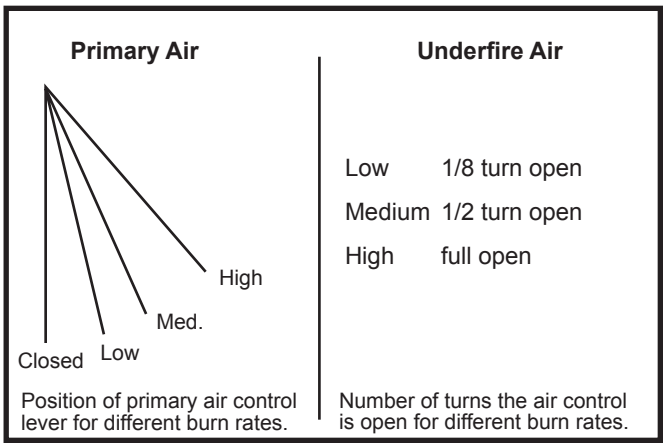


Fig. 24 Primary and Underfire air settings.

NOTE: The thermometer should be used only as a general indicator of temperature output. The "Inactive", "Normal", and "Hot" temperature range demarcations do not have function significance on the Dutchwest Model 2463. Normal operating temperatures will range within 500°F - 700°F from a well-established fire.

DO NOT OPERATE THE STOVE WITH THE ASH DOOR OPEN. OPERATION WITH THE ASH DOOR OPEN CAN CAUSE AN OVERFIRING CONDITION TO OCCUR. OVERFIRING THE STOVE IS DANGEROUS AND CAN RESULT IN PROPERTY DAMAGE, INJURY, OR LOSS OF LIFE.

How to Build and Maintain a Wood Fire

Loading Wood

Your Dutchwest Convection Heater accepts wood from both the front and side. Front loading is useful for kindling a new fire and adding an occasional log, however, we recommend side loading as most convenient when adding several logs at a time. Always be certain that the stove damper is open before opening either door.

WARNING: OPERATE YOUR DUTCHWEST CONVECTION HEATER ONLY WITH THE DOORS FULLY CLOSED EXCEPT WHEN REFUELING.

THIS STOVE IS HOT WHILE IN OPERATION! KEEP CHILDREN, CLOTHING, AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.

Break-in Fires

If your stove is new or has new cast iron replacement parts, “season” the new cast iron with a few break-in fires. Follow Steps 1-3 below. Then let the fire burn out. Do not close the damper. Maintain a small, but not smoky, fire by adjusting the primary air control. After the break-in fires, continue with Step 4.

The stove’s paint and cement will emit a slight odor as these materials cure during the first few fires. You may wish to provide extra ventilation near the stove by partially opening a door or window when the odor is present.

Lighting the Fire

Step 1. Open the stove damper. Fully open both the primary air control and the front air control.

Step 2. Lay some crumpled newspapers in the stove. Place six or eight finger-width size pieces of dry kindling on the paper. On the kindling, lay two or three larger sticks of split dry wood approximately 1-2” (25-50 mm) thick.

DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE. DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPTHA, OR ENGINE OIL.

Also, never use gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or “freshen up” a fire in this heater. Keep all such liquids well away from the heater while it is in use.

Step 3. Light the newspaper and close the door. The fire should be well-established within 10-15 minutes. You may gradually build it up by adding a few sticks at a time of a progressively larger size. Continue to build the fire until a live coal bed begins to form.

NOTE: An especially large, outdoor, or cold chimney may need to be “primed,” or warmed up, before it will draw sufficiently to start a fire. If this is the case, roll up a couple pieces of newspaper, place them on top of the kindling and toward the back of the stove, light them, and close the doors. This should heat the chimney enough to initiate a draft.

Once the draft is established, open the front door and light the rest of the fuel from the bottom. Do not light the main bed of fuel until the chimney begins drawing. Repeat the procedure as often as necessary if the initial attempt is unsuccessful.

Step 4. After a lively fire has been established, (approx. 30 minutes) close the stove damper.

Step 5. Close the primary air control to a medium low setting. The fire volume will diminish immediately, but the stove will continue to warm up. Maintain control of the fire using the primary air control. Reduce the setting for a smaller fire, increase the setting for a hotter, more intense fire. Refer back to the air control settings chart on Page 19.

DO NOT OVERFIRE THIS HEATER. Overfiring may cause a house fire, or can result in permanent damage to the stove. If a part of the stove or the chimney connector glows, you are overfiring.

Reloading and Reviving the Fire

Open the stove damper and wait at least fifteen seconds for the draft to increase. Open the door slowly and add the fuel. Split firewood will fill the firebox more completely than will unsplit wood and will thereby reduce the frequency of reloading.

You may find the fire intensity will decrease after reloading, particularly if the loading door is open a long time. Stimulate the fire by increasing the primary air supply and leave the stove damper open. Then as soon as the fire is reestablished, close the damper and reduce the air supply to prevent over-firing.

Further suggestions...

* If the charcoal bed is relatively thick and your fuel is well-seasoned, it is possible to add fresh fuel (smaller pieces first), close the door and damper, and reset the air control within five minutes.

* When refueling, avoid breaking the charcoal bed into small pieces. Large pieces of charcoal help the fire recover quickly.

* The glass will remain cleaner if refueling is done when the previous load of fuel has burned down to hot, glowing coals. Use a crumpled piece of dry newspaper to wipe fly ash buildup off of the glass. Do not use liquid cleaning agents of any type on hot glass.

Remove Ashes Frequently

Wear heavy stove gloves when removing ashes. Check the ash compartment before reloading the stove. If the ashes are close to the top, empty the pan. Before replacing the ash pan, clear away any ash that has spilled over the sides and back of the ash pan.

Empty the ash drawer regularly - typically every one to three days. The frequency will vary depending on how hot you run your stove: the hotter the fire, the more wood you burn, and the faster ash will accumulate.

Safe Ash Handling

Ash may contain hot coals and must be treated with extreme care. Ashes should be placed outdoors in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, keep them in the closed container until all cinders have thoroughly cooled. Wood ash may be used as a garden fertilizer.

CAUTION: Never use a vacuum cleaner to remove ash from the stove; always remove and dispose of the ashes properly.

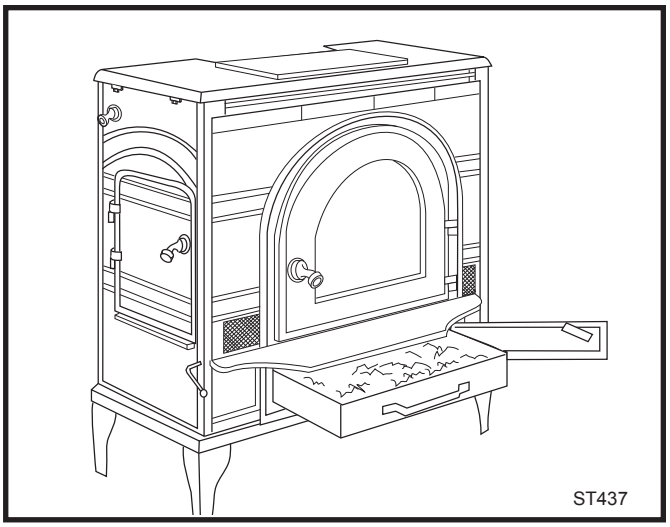


Fig. 25 Hot ashes can be dangerous and must be stored outdoors on a noncombustible surface in a metal container with a tight-fitting lid.

Maintenance

Keep Your Stove Looking New and Working Its Best

Care of the Cast Iron Surface

An occasional dusting with a dry rag will keep the painted cast iron of your Dutchwest Convection Heater looking new.

If the paint needs retouching, allow the stove to cool completely. Wire-brush areas needing to be painted. Remove non-painted components such as air controls or cover them with masking tape. Touch up the stove with high temperature stove paint available from your local dealer. Apply the paint sparingly. Two light coats are better than one heavy one.

Cleaning the Glass

You will find that most of the carbon deposits on the glass will burn off regularly during hot fires. You can wipe fly ash from the glass when hot using a crumpled piece of dry newspaper. **Never use liquid cleaning agents on hot glass.** If you wish to clean the glass more thoroughly, follow this procedure:

- Be sure the glass is completely cool.
- Use a glass cleaner especially made for this purpose.
- Dry the glass completely.

Adjust the Door Latch

The door latches must close tightly to ensure a good seal between the each door and the stove plates. With time and use, the door latches will require periodic adjustment. Follow this procedure: (Fig. 26)

1. Loosen the small locking nut with an open end wrench.
2. Use the allen wrench (included with the stove) to turn the striker screw clockwise one quarter-turn and close the door to test the engagement. The door latch should engage tightly when closed. Make further adjustments in small increments.
3. When the striker screw is properly adjusted, tighten the small locking nut against the pawl without allowing the striker screw to turn.

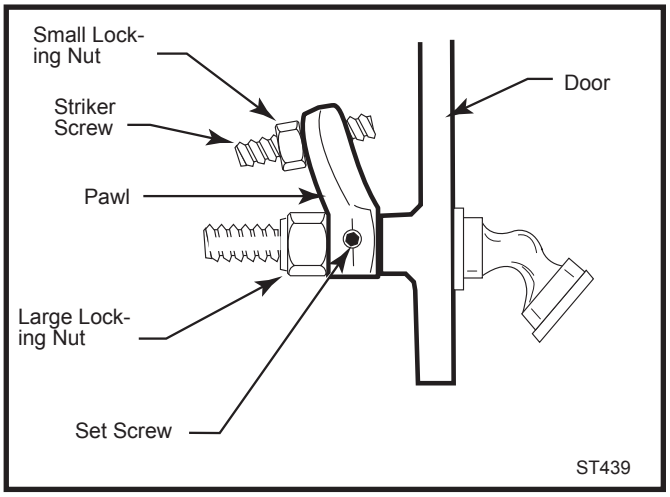


Fig. 26 Door latch adjustment.

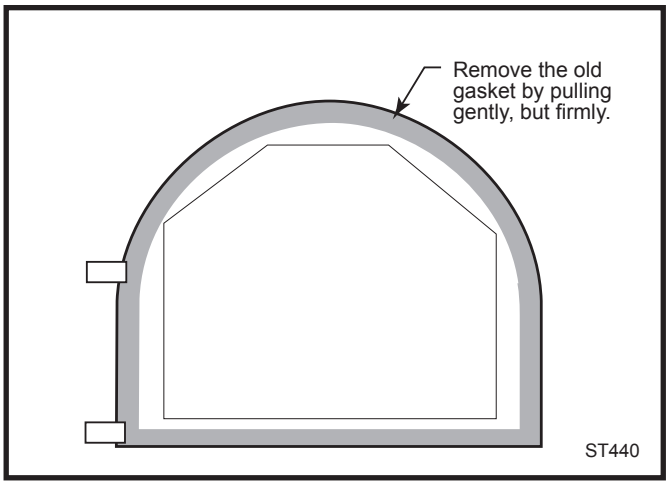


Fig. 27 Door gasket.

Test And Repair the Door Gaskets

Air leaks can be caused by low spots in the door gaskets. To locate such low spots, close each door on a slip of paper and attempt to pull the paper free. If the paper slips out without tearing, the gasket isn't snug enough at that spot.

If the seal cannot be improved by adjusting the door latch, try shimming the gasket. Pack a small quantity of cement or a smaller diameter gasket into the channel beneath the gasket to lift the main gasket and thereby improve its contact with the door frame.

If shimming does not improve the seal, replace the gasket following these steps:

1. Remove the original gasket by grasping an end and pulling firmly.
2. Wearing safety goggles, use a wire brush or the tip of a screwdriver to clean the channel of any remaining cement or bits of gasket.

3. Apply a thin bead of stove cement in the newly-cleaned groove.
4. Lay the gasket into the groove. Wait until you are a couple inches from the end before you cut it.
5. Test the gasket by closing the door on a slip of paper as described above. Adjust the gasket in any areas where an inadequate seal is evident.

All rope-type gasketing used in the Dutchwest Convection Heater is made of fiberglass. The gasketing is 7/16" diameter for front and side doors and the ash door and 3/8" for the top plate. 1/4" gasketing is used behind the glass.

Repair Missing Cement in Seams

The cement in the stove seams may deteriorate over time and fall out in places. Just as with the stove doors, it is necessary to keep the seam seals in good condition. Spot-fix with furnace cement (available from your local dealer) any areas where the cement seal is visibly deteriorated. Allow 24 hours for the new cement to dry after "washing down" seams.

Avoid Damaging the Glass Door Panel

Do not abuse the glass by slamming the door or striking the glass with a log. Never operate your stove if it has damaged or broken glass. If you need to replace the glass, use only replacement glass provided by your local Dutchwest dealer.

Damper Adjustment

With time, you may need to adjust the damper linkage to ensure that the damper plate seals tightly when closed. Test the damper when the stove is cold. When turned into the closed position, the damper should be feel "snug" but not too tight. It will become a little tighter as the stove heats up. Use a 7/16" socket wrench with socket extension to adjust the linkage:

1. In an alternating pattern, first loosen and then remove the four bolts that secure the top plate to the sides of the stove.
2. Open the damper.
3. Loosen the adjusting bolt's lock nut. (Fig. 28)
4. Loosen the anchor bolt's lock nut, located on the underside of the damper.
5. Loosen the anchor bolt a turn or two.
6. Tighten the adjusting bolt.
7. Test the damper. Make further adjustments if necessary.
8. When final adjustment has been made, tighten the adjusting bolt lock nut, the anchor bolt, and the anchor bolt lock nut.

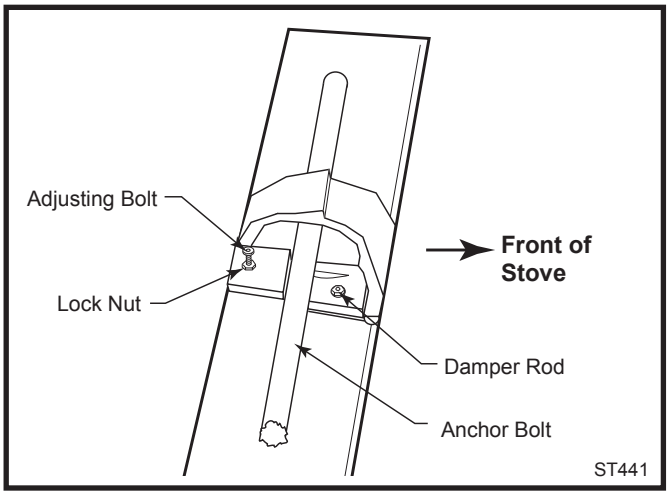


Fig. 28 Damper adjustment.

Primary Air Control Adjustment

A simple spring-loaded tab maintains tension on the primary air control lever. The air control should be loose enough for you to easily set its position by hand, but also snug enough to remain in that position until you change it.

Over time, the air control may tighten or loosen. To adjust the tension on the control, let the stove cool to room temperature. Open the side-loading door and look in toward the inner side of the front panel of the stove. (Fig. 29) Locate the lower hex head bolt (A) on the primary air manifold, just inside the door. Remove the bolt with an open end or box end wrench to gain access to the adjustment screw (B) inside the manifold. Insert a Phillips screwdriver into that hole and turn the screw clockwise to increase tension, counterclockwise to decrease tension. Make adjustments in small increments and test the operation. Replace the hex head bolt when you are done.

Note that the mechanism may tighten slightly as the stove heats up. Your adjustment should leave the air control snug, but not overly tight.

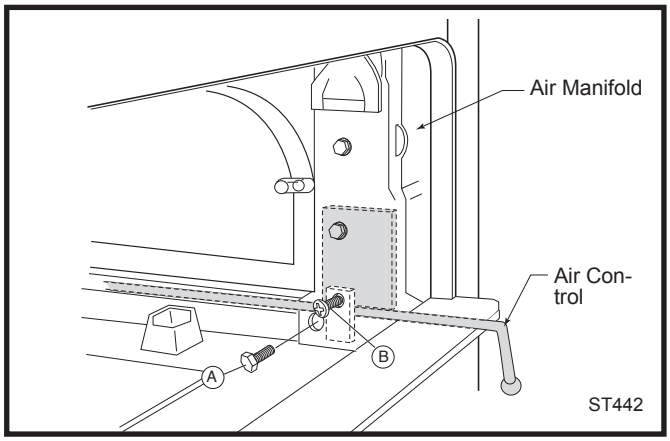


Fig. 29 Primary air control adjustment.

Cleaning the Chimney System

The chimney system is composed of the chimney and the pipe that connects the stove to the chimney. Inspect the chimney and chimney connector at least twice monthly, and clean if necessary.

When you first begin using the stove, check daily for creosote — a substance that can look like either thick tar or black, crisp flakes. Experience will show how often you need to clean to be safe. The frequency may even vary during the year. In the colder months when the hottest fires producing the least creosote are burned, you may need to clean only every couple of months. During the warmer months when creosote is more likely to result from cooler-burning fires, weekly cleaning may be necessary.

At the very least, inspect the chimney connector and chimney at least once every two months during the heating season to determine if a buildup of creosote or soot has occurred. If a significant layer of creosote has accumulated (1/8" [3 mm] or more), or if soot has accumulated, either should be removed to reduce the risk of a chimney fire. Failure to keep the chimney and connector system clean can result in a serious chimney fire.

The conditions for a chimney fire develop as follows: When wood is burned slowly, it produces tar and other organic vapors which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. Creosote is flammable and, when ignited, makes an extremely hot fire within the flue system which can damage the chimney and overheat adjacent combustible material.

To reduce the amount of creosote that may form, remember to provide adequate air for combustion and to strive for small, intense fires rather than large, smoldering ones.

You can never be too safe. Contact your local fire authority for information on what to do in the event of a chimney fire, and have a clearly understood plan on how to handle one.

Inspect Regularly, Clean As Required

Inspect the chimney and chimney connector twice monthly and clean if necessary. Let the stove cool completely before you inspect the chimney. Use a flashlight and mirror to sight up the flue through the chimney clean-out door or chimney connector inspection tee. If no inspection access is available, disconnect the pipe from the stove.

Clean the chimney using a specially designed chimney cleaning brush, the same size and shape as the flue liner, attached to flexible fiberglass rods designed for this purpose. Run the brush up and down the liner so that any deposits fall to the bottom of the chimney where they can be removed through the clean-out door.

Clean the chimney connector by disconnecting the sections, taking them outside, and removing any deposits with a stiff wire brush. You can use a chimney brush of correct size to clean chimney connector pipe. Reinstall the connector sections after cleaning, being sure to secure the individual sections with three sheet metal screws per section.

If you are unable to inspect and/or clean the chimney system yourself, contact your local Dutchwest dealer or hire a qualified chimney sweep in your area to do the job.

Maintenance Schedule

THE STOVE:

DAILY:

- Ashes should be removed before they reach the top of the ash pan. Check accumulation at least once a day.
- Keep the area around the stove clear of any combustible materials such as wood, furniture or clothing.

TWO MONTHS:

- Check door handle to be sure it is working properly. Gasketing becomes compressed after a period of time. Adjust handle tightness if necessary.
- Check leg bolts and heat shield screws; tighten if necessary.

Annual Spring Cleaning

- Check gasketing for wear, and replace if necessary.
- Remove ashes from the ash pan and replace with a moisture absorbing material (such as kitty litter) to keep the interior of the stove dry.
- Inspect and clean the refractory package and catalyst.
- Clean the dust from the inner sides of bottom, rear or pipe heat shields if your stove is equipped with them. Clean surfaces are better heat reflectors than dirty surfaces.
- Touch up the black paint.

The Chimney Connector

TWO WEEKS:

- Inspect the chimney connector and chimney. Clean if necessary.

TWO MONTHS:

- Inspect the chimney and chimney connector. Pay particular attention to the horizontal runs of chimney connector, and the elbows. Clean the system if necessary.

Yearly Spring Cleaning

- Disassemble the chimney connector and take it outdoors for inspection and cleaning. Replace weak sections of connector.
- Inspect the chimney for signs of deterioration. Repairs to a masonry chimney should be made by a professional mason. Replace damaged sections of prefabricated chimney. Your local Dutchwest dealer or a chimney sweep can help determine when replacement is necessary.
- Thoroughly clean the chimney.

Draft Management

Your stove is only one part of a system that includes the chimney, the operator, the fuel, and the home. The other parts of the system will affect how well the stove works. When there is a good match between all the parts, the system works well.

Wood stove operation depends on natural (unforced) draft. Natural draft occurs when exhaust gas is hotter (and therefore lighter) than the outdoor air at the top of the chimney. The greater the temperature difference, the stronger the draft. As the hot exhaust gas rises out of the chimney, it generates suction that draws air into the stove for combustion. A slow, lazy fire when the stove's air inlets are fully open indicates a weak draft. A brisk fire, supported only by air entering the stove through the air inlets, indicates a good draft. The inlets are passive; they regulate how much air can enter the stove, but they don't force air into it.

The efficiency of a modern woodburning appliance, (in which the amount of air available for combustion is regulated), depends on the chimney to keep exhaust gases warm all the way outdoors. The characteristics of your chimney - whether it is steel or masonry, interior or exterior, matched or mismatched to the stove outlet, - determine how quickly it will warm up and how well it will sustain the optimum temperatures necessary to maintain strong draft and efficient combustion. Here follows a description of various flue system characteristics and the related effects on stove performance.

Masonry Chimney

Although masonry is the traditional material used for chimney construction, it can have distinct performance disadvantages when used to vent a controlled-combustion woodstove. Masonry forms an effective 'heat sink' - that is, it absorbs and holds heat for long periods of time. The large mass, however, may take a long time to become hot enough to sustain a strong draft. The larger the chimney (in total mass), the longer it will take to warm up. Cold masonry will actually cool exhaust gases enough to diminish draft strength. This problem is worse if the chimney is located outside the home or if the chimney flue has a cross-sectional volume much larger than the stove outlet.

Steel Chimney

Most factory-made 'Class A' steel chimneys have a layer of insulation around the inner flue. This insulation keeps the smoke warm and protects the surrounding structure from the high flue temperatures. Because the insulation is less dense than masonry, the inner steel liner warms up more quickly than a masonry chimney; this makes the steel chimney support a good draft more quickly than masonry does. Steel chimneys are not as attractive as masonry, but they are very durable and generally outperform masonry.

Indoor/ Outdoor Location

Because the chimney's function is to keep the smoke warm, it is best to locate it inside the house. This location uses the house as insulation for the flue and allows some radiant heat release from the flue into the home. Since an interior chimney doesn't continuously lose its heat to the outdoors, less heat from the stove is required to get it warm and keep it warm.

Flue Sizing

The flue size for a controlled-combustion appliance should be based on the cross-sectional volume of the stove flue outlet. In this case, more is definitely not better. Hot gases lose heat through expansion; if a stove with a six-inch flue collar (28 square inch area) is vented into a 10" x 10" flue, the gases will expand to over three times their original volume. As gases cool with expansion, draft strength decreases. If an oversized flue is also outside the house, the heat it absorbs will be conducted to the outdoor air and the flue will remain relatively cool.

It is common for a masonry flue to be oversized for the stove. Such a chimney can take quite a while to warm up and the stove performance will likely be disappointing. The best solution to an oversize flue problem is the installation of an insulated steel chimney liner of the same diameter as the appliance flue outlet. The liner keeps the exhaust gas warm and the result is a stronger draft. An uninsulated liner is a second choice - although the liner will keep the exhaust restricted to its original volume, the air around the liner will require time and heat energy to warm up.

Check your local codes. You may be required to install a flue liner in any oversize or masonry flue.

Pipe & Chimney Layout

Every bend in the flue will act as a brake on the exhaust as it flows from the firebox to the chimney cap. The ideal pipe and chimney layout is straight up from the stove through a completely straight chimney. Use this layout if at all possible as it will promote optimum stove performance and simplify maintenance.

If the stovepipe must elbow to enter a chimney, locate the elbow about midway between the stove top and the chimney thimble. This configuration lets the smoke speed up before it must turn, keeps some pipe in the room for heat transfer, and allows long-term flexibility for installing a different appliance without relocating the thimble.

There should be no more than eight feet of single-wall stove pipe between the stove and a chimney. Longer runs can cool the smoke enough to cause draft and creosote problems. Use double-wall stove pipe for longer runs.

Single Venting

Your stove requires a dedicated flue. Do not connect the stove to a flue used by any other appliance. Chimney draft is a natural form of energy and follows the path of least resistance. If the stove is vented to a flue that also serves an open fireplace or another appliance, the draft will also pull air in through those avenues. The additional air flow will lower flue temperatures, reduce draft strength and promote creosote development; overall stove performance will suffer. The effect is similar to that of a vacuum cleaner with a hole in the hose. In some extreme instances, the other appliance can even impose a negative draft and result in a dangerous draft reversal.

Fuel

Even the best stove installation will not perform well with poor fuel. If available, always use hardwood that has been air-dried ("seasoned") 12-18 months. Softwood burns more rapidly than hardwood and has a high pitch content conducive to creosote production. Decayed wood of any type has little heat value and should not be used.

All unseasoned ('green') wood has a high moisture content. Much of its heat value will be used to evaporate moisture before the wood can burn. This significantly reduces not only the amount of energy available to warm your home, but also the intensity of the fire and temperature of the exhaust gas. Incomplete combustion and cool flue temperatures promote creosote formation and weak draft.

You can judge the moisture content of wood by its appearance and weight or use a commercially available moisture meter for an exact measurement. Unseasoned wood will be a third heavier than dry wood. Also, look for cracks ("checking") in the ends of the log that result from contraction as the wood dries. The longer and wider the cracks are, the dryer the wood is.

Purchase your fuel from a reputable dealer.

Creosote

Creosote is a by-product of low-temperature stove operation, weak draft, or both. It is a tar that results when unburned gases condense inside the flue system at temperatures below 290˚ F. Creosote is volatile and can generate a chimney fire. All of the installation characteristics that adversely affect chimney draft also promote creosote condensation. Consequently, you can minimize creosote accumulation with an effective chimney design and the use of operational techniques that encourage good draft and complete combustion.

Inspect your chimney frequently and clean it whenever accumulation is exceeds 1/4".

Backpuffing

Backpuffing is a condition that results when the draft is too weak to pull flue gases out of the chimney system as fast as the fire generates them. Volatile gases build up within the firebox until reaching a density and temperature at which they ignite. With this ignition, you may hear a muffled popping sound and see a bit of smoke forced out of the stove.

This condition is most likely to occur in the Spring or Fall when moderate outdoor temperatures and low intensity fires produce weak draft. If your stove back-puffs, open up the damper to let the smoke rise to the flue more quickly. Also, open the air inlets to induce a livelier fire and speed airflow through the stove. Avoid large loads of firewood at one time. You should always see lively, dancing flames in the firebox; a lazy, smoky fire is inefficient and will promote draft problems.

Draft Testing

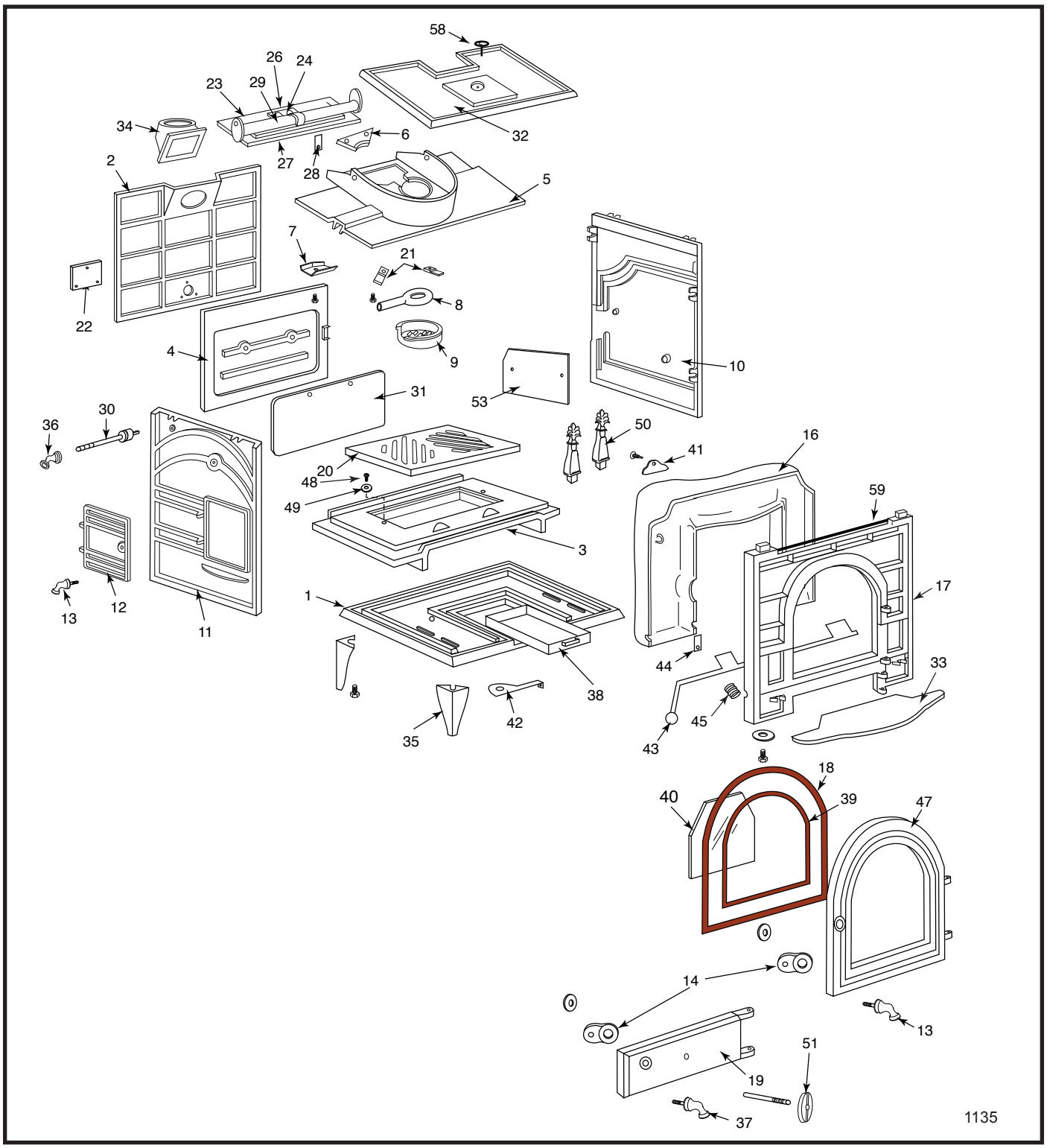
An easy way to determine whether your chimney draft is strong enough is to close the stove damper, wait a few minutes to let the airflow stabilize, and then test whether you can vary the strength of the fire by swinging the air control open and closed. Results here are not instant; you may need to wait a few minutes for a change in the air control setting to have an effect on the fire. If there is no change, the draft is not yet strong enough to let you close the damper. You will need to open it for a while longer and manage the fire with the air inlet until the draft strengthens. Keep a record of your operating habits and relate them to their effects on the stove's function. You'll be rewarded with safe and efficient performance.

Negative Pressure

Good draft also depends on a sufficient supply of air to the stove. The chimney can't pull in more air than is available to it. Sluggish draft can be caused by a house that is tight enough to prevent the ready flow of air to the stove, or by competition between the stove and other appliances that vent indoor air to the outside; i.e., exhaust fans for range hoods, clothes dryers, bathroom fans, etc. If the chimney draws well when all such equipment is turned off (or sealed, in the case of fireplaces and/or other stoves), you need to be attentive in timing the use of the other appliances. If you need to crack a nearby window or door to enable the chimney to pull well, you should install an outside-air intake to bring combustion air into the room.

Conclusion

Woodburning is more an art than a science. Art includes technique; and since installations, homes, and fuel vary, the stove operator must also vary technique, (mostly timing), to achieve satisfying results. Over time, you will become familiar with the features of your particular installation; you will be able to identify cause and effect in a variety of seasonal circumstances, and adapt your operating habits to changing conditions.



MHSC reserves the right to make changes in design, materials, specifications, prices and discontinue colors and products at any time, without notice.

Dutchwest Convection Heater
Model 2463

Dutchwest Convection Heater

Model 2463 (continued)

	Item/Description	2463
1.	Bottom	7000958
2.	Back II	7001144
3.	Inner Bottom	7001136
4.	Back II, Inner	7001130
5.	Inner Top	7001112
6.	Web, Inner Top	7001110
7.	Inner Top Channel Cap	7000961
8.	Air Distributor	7000952
9.	Baffle	7000953
10.	Side, Right	7001229
11.	Side, Left	7001120
12.	Door, Side Sm	7001121
13.	Load Door Handle (2)	5004273
14.	Door Pawl (3)	5004025
16.	Primary Air Manifold	7001137
17.	Front, Sm	7001139
18.	Gasket for Doors	7000910
19.	Ashdoor	7001224
20.	Grate	30002092
21.	Retainer Tab for Web (2)	1601488
22.	Fan Plate	7000037
23.	Damper	7000954
24.	Damper Adjuster	7000950
25.	Damper Adjuster Screw 1/4-20 x 1”	1201370
26.	Washer	1202561
27.	Damper Adjuster Screw Hex Nut 1/4-20	1203212
28.	Damper Tab (2)	1601488
29.	Damper Crank	7000951
30.	Damper Operating Rod	7001145
31.	Grate Back	7001166
32.	Top	7000960
33.	Hearth	7001142
34.	Flue Collar	7000969
35.	Leg	7000016
36.	Damper Handle Stub	5004267
37.	Ash Door Handle	5004271
38.	Ash Pan	7000G79
39.	Gasket for Glass	1203591
40.	Glass	7001146
41.	Manifold Cap (2)	7001163
42.	Holder for Door Handle Insert	1600600
43.	Primary Air Control	7001143
44.	Damper Tab for Primary Air Control	1601488
45.	Damper Tab Spring	1201846
46.	Damper Tab Screw 1/4-20 x 5/8”	1200896
47.	Front Door	7001140
48.	Inner Bottom Screw 1/4-20 x 3¾”	1201394
49.	Washer	1202470
50.	Andiron (2)	7001117
51.	Underfire Air Control	7001128
52.	Stud, 3/8-16 x 1½”	1204253

Dutchwest Convection Heater

Model 2463 (continued)

	Item/Description	2463
53.	Plate, Side Wear	7001198
58.	Thermostat, Cat. Probe	7000948
59.	Front Rod-Gold Plt.	7001179

Please Record this Information for Future Reference

Serial number: _____

Purchase Date: _____

Installation Date: _____

Dealer: _____

_____

_____

Installer: _____

_____

_____

Warranty

Limited 3 Year Warranty

MHSC warrants that this woodburning stove will be free of defects in material and workmanship for a period of three years from the date you receive it, except that the catalyst, thermostat assembly, handles, glass door panels, cement, and gasketing shall be warranted as described below.

MHSC will repair or replace, at its option, any part found to be defective upon inspection by a Dutchwest, Authorized Dealer. The customer must return the defective part or the stove, with shipping prepaid, to the Authorized Dealer or pay for any Authorized Dealer in-home travel fees or service charges for in-home repair work. It is the dealer's option whether the repair work will be done in the customer's home or in the dealer's shop. If, upon inspection, the damage is found to be the fault of the manufacturer, repairs will be authorized at no charge to the customer for parts and/or labor.

Any woodburning stove or part thereof that is repaired or replaced during the limited warranty period will be warranted under the terms of the limited warranty for a period not to exceed the remaining term of the original limited warranty or six (6) months, whichever is longer.

Limited 1 Year Warranty

The following parts of the woodburning stove are warranted to be free of defects in material and workmanship for a period of one year from the date you receive it: The thermostat assembly, handles, glass door panels, cement, and gasketing. Any of these items found to be defective will be repaired or replaced at no charge, upon the return of the part with postage prepaid to a Dutchwest Authorized Dealer.

Any part repaired or replaced during the limited warranty period will be warranted under the terms of the limited warranty for a period not to exceed the remaining term of the original limited warranty or six (6) months, whichever is longer.

Exclusions & Limitations

1. This warranty is transferable; however, proof of original retail purchase is required.
2. This warranty does not cover misuse of the stove. Misuse includes overfiring which will result if the stove is used in such a manner as to cause one or more of the plates to glow red. Overfiring can be identified later by warped plates and areas where the paint pigment has burned off. Overfiring in enamel fireplaces is identified by bubbling, cracking, chipping and discoloration of the porcelain enamel finish. MHSC offers no warranty on chipping of enamel surfaces. Inspect your woodburning stove prior to accepting it for any damage to the enamel.
3. This warranty does not cover misuse of the stove as described in the Owner's Guide, nor does it cover a stove which has been modified unless authorized by a MHSC representative in writing. This warranty does not cover damage to the stove caused by burning salt saturated wood, chemically treated wood, or any fuel not recommended in the Owner's Guide.
4. This warranty does not cover a stove repaired by someone other than a Dutchwest Authorized Dealer.
5. Damage to the unit while in transit is not covered by this warranty but is subject to a claim against the common carrier. Contact Dutchwest Authorized Dealer from whom you purchased your stove or MHSC if the purchase was direct. (Do not operate the stove as this may negate the ability to process the claim with the carrier.)
6. Claims are not valid where the installation does not conform to local building and fire codes or, in their absence, to the recommendations in our Owner's Guide.
7. The salt air environment of coastal areas, or a high-humidity environment, can be corrosive to the porcelain enamel finish. These conditions can cause rusting of the cast iron beneath the porcelain enamel finish, which will cause the porcelain enamel finish to flake off. This warranty does not cover damage caused by a salt air or high-humidity environment.
8 MHSC shall have no obligation to enhance or update any unit once manufactured.

IN NO EVENT SHALL MHSC BE LIABLE FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES. ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, ARE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. THIS WARRANTY SUPERCEDES ALL OTHER ORAL OR WRITTEN WARRANTIES.

Some states do not allow the exclusion or limitations of incidential and consequential damages or limitations on how long an implied warranty lasts, so the above limitations may not apply to you. This warranty gives you specific rights and you may have other rights which vary from state to state.

How to Obtain Service

If a defect is noted within the warranty period, the customer should contact a Dutchwest Authorized Dealer or MHSC if the purchase was direct with the following information:

1. Name, address, and telephone number of the purchaser.
2. Date of purchase.
3. Serial number from the label on the back.
4. Nature of the defect or damage.
5. Any relevant information or circumstances, e.g., installation, mode of operation when defect was noted.

A warranty claim will then start in process. MHSC reserves the right to withhold final approval of a warranty claim pending a visual inspection of the defect by authorized representatives.

MHSC

149 Cleveland Drive • Paris, Kentucky 40361
www.mhsc.com